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THE

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VOL. II.—10TH YEAR.

SYDNEY: SATURDAY, JULY 7, 1923.

No. 1.

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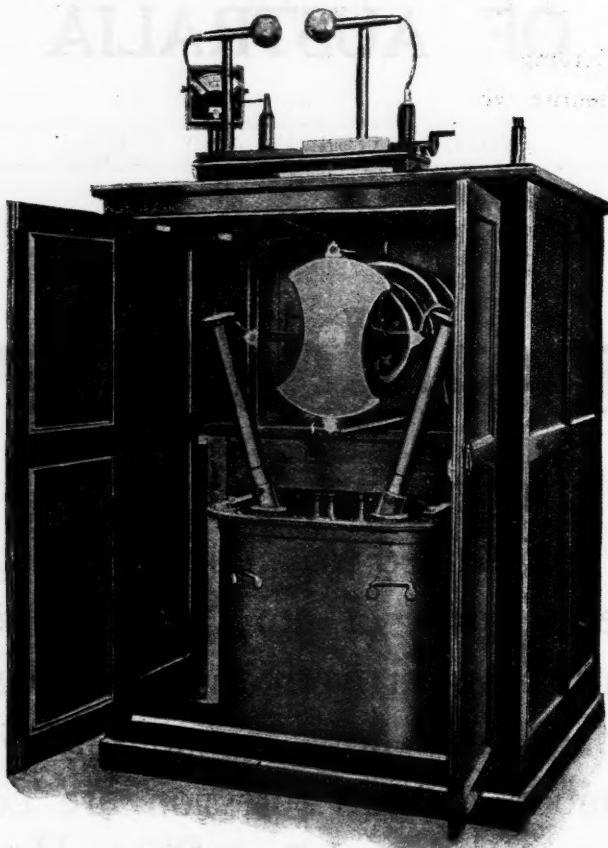
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Listerian Oration.¹

THE CLINICAL INTERPRETATION OF BLOOD PRESSURE READINGS.

By C. BICKERTON BLACKBURN, O.B.E., M.D.,
Sydney.

IN the first place I wish to thank you for the great honour you have paid me in inviting me to come here tonight. It is a compliment that I appreciate all the more because of my old association with the Adelaide University.

When discouraged by the difficulties of preparing an address in any way commensurate with such an occasion as the present, one realizes more than ever the genius and amazing capacity for work of the immortal scientist in whose memory this Oration was founded. Those of us who are prone to think that our professional duties leave no time for recording our observations, should remember that Lister made those researches that have conferred untold blessings upon the human race while actively carrying on an enormous surgical practice.

The whole world waits impatiently to do honour to the discoverer of the cause and cure of cancer,

yet I doubt if such discovery would confer greater benefits than that of the means of prevention of premature vascular decay, the dread disease that so cruelly cuts down one after another in the prime of life and at the period of greatest usefulness to the community.

The shadow of one such tragedy still broods over the Commonwealth and none know better than we what a loss it has sustained through the untimely death of that great surgeon and teacher, Sir Herbert Maitland.

Till such time as we can avert the disease, it behoves us to concentrate our attention upon the early recognition of its presence and the delay of its progress and I have thought it might be of service at least to those on the threshold of their career, if I dealt with some aspects of vascular disease from the standpoint of clinical experience.

In choosing the subject of the clinical interpretation of blood pressure readings I have been influenced largely by my feeling that it is one to which too little attention is often given. Too frequently, I fear, the sphygmomanometer is rather a hindrance than a help to both doctor and patient.

Many of the public regard "blood pressure" as a new disease that has arisen to plague humanity and one finds them coming to our consulting rooms and timidously asking: "Have I blood pressure?" Some-

¹ Read at a meeting of the South Australian Branch of the British Medical Association on May 31, 1923.

times also, I fancy, the medical attendant is a little inclined to stand in awe of his instrument and to base his prognosis and treatment too slavishly on its readings, forgetting that his sphygmomanometer is primarily a means by which he can record in figures observations that his predecessors made with their fingers, assessing their true value after a careful investigation of heart, blood vessels and kidneys.

Before discussing how far and in what way we can utilize the sphygmomanometer in estimating the extent of pathological lesions, it will be well briefly to review some of the factors concerned in producing alterations in blood pressure.

Peripheral Resistance.

When the blood pressure is raised above normal, the most important influence is undoubtedly an increase in the resistance offered to the blood flow and this is met with chiefly in the smaller arterioles that act as links between the larger vessels and the capillaries. Such resistance may be temporary and due to spasmodic contraction of the middle coats. In a merely transitory form this is seen in conditions of emotional stress such as fright, but in the consulting room it is usually met with chiefly in the condition known as hyperpiesia in which we believe that a temporary spastic change is present as the result of some toxic agent, the elimination of which will be followed by recovery. Whether hyperpiesia is always merely the initial reaction of the vessels to a toxin which, if allowed to act long enough, will result in permanent damage, is difficult to say, but it is certain that many patients who at first present the characteristic features of hyperpiesia, including a well concentrated normal urine, eventually manifest permanent vascular disease. Such a permanent change leading to narrowing of the lumen of the smaller vessels is the essential feature of the majority of the cases we see with symptoms associated with high blood pressure and classify under the general term arterio-sclerosis.

Geoffrey Evans who may be regarded as the leading British authority on the pathological changes in arterio-sclerosis, has shown⁽¹⁾ that in the great majority of such cases (excluding the senile form) the actual lesion is a diffuse hyperplastic sclerosis of the arterioles and smaller arteries, involving ultimately (i.) a fatty degeneration of the intima of the arterioles and (ii.) a hyperplasia of the parent arteries from which the arterioles spring. Change in the coats of the larger arteries is not an integral part of the picture, but when the peripheral obstruction is so great that a very high pressure is needed to carry on an efficient circulation, the efforts of the heart are seconded by a hypertrophy of the middle coats of the large vessels. This hypertrophy may in the end be succeeded by degeneration of both middle and inner coats with calcareous deposition.

Though often combined with senile arterio-sclerosis, in which condition the essential lesion is a fatty degeneration of the media of the larger

vessels, changes in the intima being mainly secondary, diffuse hyperplastic sclerosis has quite a different origin, being inflammatory in character.

It is in the latter condition that we meet with very high blood pressure readings, while often finding little or no change in the walls of the radial arteries. In the senile form, on the other hand, in spite of gross changes in these vessels, the pressure may be within normal limits as they offer but little resistance to the blood stream.

While it is necessary for our proper understanding of vascular conditions that we should mentally differentiate between spastic and permanent alterations in the calibre of the blood vessels, it is important to remember that in actual practice both factors are very often combined and that until the aetiology of arterio-sclerosis is revealed, our prospect of ameliorating the symptoms of which the patient complains, depends almost entirely upon the degree of spasm present. Moreover, though we know so little of the toxic agencies at work in hypertension, there is good reason to think on clinical grounds that arterial spasm does result from poisons generated through the excessive intake of food and alcohol, especially during the period of life when muscular activity is being reduced.

Cardiac Defect.

So far we have only considered the influence of peripheral resistance in raising the blood pressure and we must next turn to the consideration of the heart which has to supply the initial force. If the pressure is really at a very high level, it is clear that the heart must be fairly efficient, but it is doubtful if a hypertrophied heart alone would ever cause a high pressure owing to the readiness with which normal blood vessels will dilate. If, however, the heart muscle is already defective from previous disease when arterio-sclerosis sets in, the raised pressure necessary to supply an efficient circulation will not be forthcoming and herein lies the explanation of many cases met with in which signs of circulatory failure appear more or less mysteriously, without any elevation of blood pressure or history of special strain upon a heart known to have had limited reserve. But with heart muscle and coronary circulation in good order excellent health may long be maintained with a steadily rising pressure and growing heart, until, in the absence of renal failure or vascular rupture, the heart begins to fail owing to defects in its own circulation. Dr. Evans supplies the clue to the long postponement of this disaster when he tells us that in his extensive pathological investigations he has never found diffuse hyperplastic sclerosis of the intimate vasculature of the heart, even when it was evident elsewhere in the body and even though advanced arterio-sclerosis of the coronary arteries was present.

The question of renal efficiency has also to be thought of constantly in the prognosis of those with raised blood pressure and Evans found in his series of cases that the arterioles of the kidneys were almost invariably more affected than those of any other organ. When the urine contains abundant

albumin and casts, this aspect of the question is hardly likely to be overlooked, but it is sometimes forgotten that more often than not both albumin and casts are scanty in or absent from the urine of arterio-sclerosis patients, even when the tests of renal efficiency show this to be well below normal limits. When such deficiency exists, though the retained excretory products tend still further to increase the pressure, our attention becomes focussed chiefly upon the danger of uræmia.

Hypotension.

Less attention has been paid as a rule to low than to high pressure readings, yet it is often in this type of case that most valuable information can be gained from the sphygmomanometer.

With healthy blood vessels unusually low blood pressures are often met with in apparently normal individuals and in certain weary, neurasthenic people low readings seem to be explained by relaxation of the muscular coats of the arteries. In many febrile conditions also, such as enteric fever, the lax condition of the vessels suggests a special action of the toxin on the sympathetic. There is a tendency I think to ascribe too readily the soft pulse met with in many acute illnesses to myocarditis. In some instances it seems probable that the normal secretion of adrenalin is interfered with and this seems especially the case in pneumonia, in which disease *post mortem* examination so often reveals extensive damage to the suprarenal capsules. T. B. Elliott⁽²⁾ in an interesting paper on the pathological changes in the adrenal glands, dealing with the glands in most varied diseases, writes: "Pneumonia: Of this disease, eight adult cases were examined. Three were acute, with death in three days; and they showed the most marked changes of all the glands that were ever examined. They were utterly exhausted of lipid and much enlarged by general oedema. In more prolonged cases the oedematous enlargement and the exhaustion of lipid were less." Such relaxation of the peripheral resistance in diseased conditions of the vessels probably explains the surprising way in which many patients with degenerated hearts, labouring against increased peripheral resistance, survive intercurrent acute infections. The following case serves to illustrate this point:

A. K., fifty-two years, a boiler maker, was under treatment for failing heart with arterio-sclerosis. He had had two anginal attacks and had thickened arteries, a pulse rate of one hundred and a pulse tension of 180-130 millimetres. The heart was seen in the skiagram to be transverse and hypertrophied, with diffuse dilatation of the aorta. Acute pneumonia with consolidation of the whole of the left lower lobe set in and the patient became very ill. His pulse became soft and within a few days the systolic pressure was 100 millimetres and it remained about that level till about fifteen days after the onset of symptoms, when it began gradually to rise again. Though his temperature was high and toxæmia considerable, his cardiac distress was less than before the attack. The course of the illness was interrupted during the early days of convalescence by double femoral thrombosis. This kept him back, but he left hospital four months after the onset of pneumonia very well indeed, with a blood pressure of 150-100 millimetres. He kept well for about ten months; then he began to get heart failure again and died suddenly

just a year after his discharge from hospital. Shortly before his death his blood pressure was 164-100 millimetres.

I have quoted this case rather fully as it seems hardly possible to account for his recovery after a fall of the systolic pressure to 100 millimetres, unless this was due to vascular relaxation. I regret that the diastolic pressure was not recorded, but it was taken and I recall that it was quite low, but do not remember the exact figures.

When the above causes of lowered pressure can be excluded, the chief suspicion centres upon the heart. One of the most useful functions of a sphygmomanometer in arterio-sclerosis is to supply a series of records, the scanning of which will often enable us to detect impending failure before any definite clinical signs appear.

I shall now endeavour to illustrate some of the conditions just discussed, by quoting cases from my own records. I have purposely made the histories as brief as possible, retaining mainly matter relevant to the interpretation of the sphygmomanometric readings; this applies especially to treatment. It must not be thought that no other therapeutic measures than those mentioned were tried during the course of the cases. All blood pressure readings are from a Martin's modification of the Riva Rocci instrument and in all but the very early ones the "silence to silence" method was adopted.

Hypertension.

In looking through over four hundred case histories I found six in which the systolic pressure at some period exceeded 300 millimetres. Taking the figures alone, one merely could conclude that the muscular power of the heart was unimpaired and that there was a grave danger of cerebral haemorrhage, but clinical investigation showed that there were great differences between the cases.

Thus, in a man of fifty-eight the arteries were very thick and calcareous, the heart was bovine and the urine had a low specific gravity and contained a considerable amount of albumin and innumerable casts, hyaline, granular and epithelial. In this case a very grave prognosis was proved to be well founded by his dying of cerebral haemorrhage four days later. A woman of sixty-three with almost identical clinical findings lingered five months in hospital before succumbing to uræmia. In these two cases it was at once evident that the essential lesion was a permanent structural change in the arteries, so that little could be hoped for from the remedial measures that were adopted. In the others the picture was quite different.

A man, aged fifty-eight years, overworked in a very responsible position, complained of insomnia, headache and extreme irritability. He was adipose, a gross feeder, drank much whisky daily and smoked heavily. His pulse was full, tense and wiry. The vessel walls felt thick, but not degenerated. The blood pressure was 300-175 millimetres. The heart was hypertrophied and the urine contained a heavy cloud of albumin and many casts. He was put to bed on an extremely low diet and was given mercurial pills and a bromide and iodide mixture and in three weeks he had lost four and a half kilograms (ten pounds) in weight, his blood pressure was 200-130 millimetres and

his urine clear. He left hospital feeling better than for years on a diet less than half what he had been used to. A month later he reported that he was keeping to his diet, his pressure was 210-135 millimetres. He was not seen by me again, but his wife informed me that he was gradually falling into his old ways and gaining weight. Two years later I heard of his sudden death from cerebral hemorrhage.

A woman of sixty-two years, seen in 1916 with a pressure of 300-180 millimetres and cardio-vascular condition very similar to that in the last patient, weighed eighty-nine kilograms (fourteen stone). Under similar treatment her blood pressure rapidly fell. She, however, has kept to her low diet and when last seen six months ago, she was in her sixty-ninth year, leading an active life and very well. She then weighed sixty-four kilograms (ten stone, two pounds) and had a pressure of 230-110 millimetres.

In the next case purely nervous influences play a large part and account for considerable variations in the readings.

First seen in 1914 at the age of forty-two years, the patient was a stout woman, complaining of dyspnoea and cardiac discomfort on the least effort or excitement. Her systolic blood pressure was 220 millimetres. Her vessels and heart appeared healthy and the urine was normal. Since then she has been seen intermittently and only carries out instructions for a little while after each visit, but the pressure usually has fallen when she has dieted and taken bromide. Her nervous irritability was shown on one occasion when, on her rather bulky arm being pinched in the armlet, her systolic pressure was 280 millimetres, but immediately on its readjustment this fell to 260 millimetres. In March, 1920, the reading was 300-200 millimetres, but fell on treatment to 260-170 millimetres. Again four months later, it was 300-190 millimetres and she began to get definite anginal attacks. This alarmed her and since then she has reduced her weight by dieting, taking also some bromide and thyroid extract and on May 9, 1923, the pressure was 200-110 millimetres.

The last patient has not been long under observation. She is a woman of fifty years, just over the menopause, who consulted me on account of purpura on her legs. She expressed herself as feeling quite well otherwise. She had a pulse rate of 114 and her blood pressure was 300-170 millimetres. The heart was not appreciably enlarged and the urine was normal. When seen after a week on a low diet and some bromide and iodide, the reading was 280-160 millimetres. She then returned to her home in another State with a note to her own doctor and I have not since heard of her.

I have mentioned these six cases rather fully as they are extreme, but my records include numerous others in which, though the blood pressures never reached such high levels, the course of events was very similar. In many of these patients neither drugs nor dieting produced any appreciable effect and renal, vascular or cardiac disaster has soon overtaken them, but I find that as a rule a careful investigation has enabled me to forecast this from the first. A more favourable prognosis can usually be based upon tense, wiry state of the vessels, renal adequacy and particularly upon the presence of removable causes of vascular spasm, such as excess of alcohol, nicotine and particularly overfeeding. I would lay stress upon the importance of insisting upon a reduction in weight in stout people in whom a spastic element is suspected. My notes record numerous most satisfactory results in such cases.

Tobacco undoubtedly plays a part in some cases, while in others it seems to have no influence. These patients have to be deprived of so much that it is

worth while testing how far any individual is affected by tobacco before deciding to cut it off. I usually get them to leave off smoking for a day or two and then take the pressure before and after smoking a pipe. I have found a rise of as much as forty millimetres in some patients and no change at all in others.

When cardiac failure sets in, the pressure often keeps surprisingly high, but in some individuals there is a considerable fall; this might be misinterpreted as a favourable response to treatment if the clinical evidence of failure was overlooked. But as treatment can only act by reducing peripheral resistance, the diastolic pressure tends to fall in proportion to or even more than the systolic. This also applies to cases when the fall is due to some complicating disease. I have noted it twice in patients with arterio-sclerosis, who have developed pernicious anaemia, a disease not always recognized at once where the patient has had for some time the arterio-sclerotic pallor. A recent patient, previously treated for arterio-sclerosis with high blood pressure, reported complaining of shortness of breath, palpitation and slight oedema of the ankles. A pressure of 145-75 millimetres suggested some other explanation than a failing heart and a blood count showed advanced pernicious anaemia.

When, on the other hand, the fall is due to myocardial failure, the peripheral resistance being still present, the diastolic pressure is often found disproportionately high.

Thus, J.S., aged fifty-eight years, had been treated "for high blood pressure" for years and had recently become short of breath and had anginal attacks. His arteries were thick and tortuous; his pulse rate was seventy-two and his blood pressure 160-130 millimetres. He died three weeks later in an anginal attack.

H.B., fifty-two years, was under treatment for four years for arterio-sclerosis, with a pressure ranging from 250-150 millimetres to 200-120 millimetres. Then the myocardium began to fail and shortly before his death from heart failure the pressure was 200-160 millimetres.

My recent critical review of my records has reinforced my opinion that one should always regard with anxiety the condition of a patient with a low pulse pressure. Unfortunately the converse is not true, for if the arterioles are healthy and the pathological changes confined to the heart or heart and large vessels, no reliance can be placed upon the pressure readings as a guide to prognosis.

A.P., aged fifty-four years, was seen with anginal pains radiating down both arms, but chiefly the right. He had thick tortuous arteries; his pulse-rate was ninety and his blood pressure was 150-90 millimetres. The heart was apparently normal except for a rather poor first sound. A careful X-ray examination showed a heart and aorta apparently normal in shape, size and position. Suspecting that his coronary vessels were worse than his radial arteries I gave a grave prognosis; he died suddenly five days later.

S.T., aged forty-seven years, had rather similar arteries and normal cardiac dulness, but the second aortic sound was not quite pure. The pulse-rate was seventy-two and the blood-pressure 140-90 millimetres. He complained of attacks of retrosternal pain which came with slight effort; his wife said that his lips were blue in them. He died suddenly seventeen days later.

Vascular Spasm.

So far, we have been dealing with cases in which there is definite pathological change present, but we often see cases in the purely spastic stage.

A man of fifty-nine, taking six whiskies and two glasses of beer daily and eating much too heartily for his years, noted one morning that his left arm felt dead and useless. This soon passed off, but later in the day his left leg became similarly affected. His vessels were very good for his age and likewise his heart; his urine was normal. His blood pressure was 210-110 millimetres. He cut off his alcohol and reduced his diet and in three weeks felt better than for years; his blood pressure was 140-85 millimetres.

Tobacco sometimes is responsible for this type of case, just as it may increase the pressure in arteriosclerosis. During the late war I found that many patients with the "effort syndrome" had high blood pressures and were smoking inordinate numbers of cigarettes. In several of these elimination of tobacco was followed by a substantial fall in pressure.

The menopause in many women is associated with this variety of high pressure.

Mrs. E., aged forty-seven years, consulted me on September 25, 1919, for flushings, headaches and irregular menstruation. She had recently gained weight. The pulse-rate was 102; her vessels were healthy and her blood pressure was 210-120 millimetres. Her heart was normal, but for an accentuation of the second aortic sound. Her urine was normal. She was given some bromide and a biweekly mercurial pill and told to reduce the carbohydrates in her diet. For about eighteen months the blood pressure ranged about 190-110 millimetres and then it began to fall. On March 1, 1921, it was 180-100 millimetres; on June 2, 1922, it was 180-95 millimetres and on April 9, 1923, it was 135-70 millimetres. She then described herself as being perfectly well.

In the next very nervous patient, anxiety about her blood pressure was probably an additional factor and she has, I think, some degree of early sclerosis.

She came first three years ago to have her pressure taken because she had been told before leaving England that it was high. In constant fear of a "stroke" she was living on a milk and carbo-hydrate diet and taking no exercise. Aged forty-five years, her menstruation was somewhat irregular and she suffered from headaches, feelings of exhaustion and insomnia, but was gaining weight. She had a tense, wiry pulse, but good vessel walls. Her heart was not enlarged and her urine was normal. The systolic pressure at first was 250 millimetres, but after emptying the armlet and chatting to her for five minutes, the reading was 225-155 millimetres.

She was told there was no danger of a stroke, that she was to play golf and tennis, eat a mixed diet, but watch the carbo-hydrates and try to get her weight down. She was also given a bromide mixture. When seen recently she was well and leading an active life. She had not menstruated for a year and her blood pressure was 170-110 millimetres, figures which suggest that there is some slight degree of permanent change.

I have drawn special attention to the diet of this patient because I think we are sometimes too obsessed with the "purin-phobia." Hare has called attention to the frequent association between excessive carbo-hydrate intake and migraine and hypertension and I have seen several cases which seemed to support his theory.

A man of fifty years consulted me for intense headaches and I found his systolic pressure 220 millimetres. His father and grandfather had been martyrs to gout and to avoid the family failing, my patient, a schoolmaster, had

lived for years on a purin-free diet, including a great excess of starch. On a well balanced diet containing a reasonable amount of animal protein, his blood pressure fell to normal in a short time and when I last saw him a year or two later he had not yet developed gout.

This condition of vascular spasm may complicate the senile type of arterio-sclerosis and is then not so easy of detection.

A man of fifty-two years, a prematurely aged clerk with a big family and a worrying position, consulted me in 1919 for headaches and difficulty in concentrating on his work. He had thickened, tortuous arteries and a blood pressure of 195-115 millimetres, but his heart was not enlarged and his urine was normal. He had not had a holiday for two years and was very "nervy." He was given a biweekly mercurial pill, some bromide and sent for a month's holiday; he came back feeling quite well, with a pressure of 150-95 millimetres. A year later he reported again in much the same state as when first seen, with a blood pressure of 190-115 millimetres. Repetition of the original treatment resulted in his reporting after a holiday with a blood pressure of 150-100 millimetres. Six months later he saw me about some indigestion and his blood pressure was 140-95 millimetres.

In many patients with low blood pressure attention will naturally focus itself upon an obvious cause, such as some toxic state or gross disease of the heart leading to failure, but it is my purpose here to refer only to some of those conditions in which the aetiology is more obscure.

Often in patients classified as neurasthenic the blood pressure is found to be low and I think there is far too great a tendency to ascribe this to weakness or dilatation of the heart, a verdict which is often quite unsupported by clinical evidence, but which usually plunges the patient still further into "the mire of despond." It seems liable to be forgotten that while constriction of the peripheral vessels will usually result in a rise in pressure, their relaxation must inevitably result in a fall. This case seems worthy of mention as presenting some what unusual features.

O.T., aged fifty-eight years, was seen first in 1904; he had been given a very grave opinion about his heart by two successive medical advisers. He complained of innumerable weird sensations which I will not attempt to detail. He had typical senile tortuous vessels and a very soft pulse. I have no record of his blood pressure then, but noted that there was a good diastolic fall and that the heart seemed satisfactory. Urine was normal. He was sleeping badly and had some nervous dyspepsia. I cheered him with an excellent prognosis and gave him a bromide and bismuth mixture. Since then I have seen him intermittently. My first record of his blood pressure was made in 1907 when the systolic pressure was 100 millimetres. When I saw him on subsequent occasions, the systolic pressure varied between 98 and 110 millimetres up till 1914, when it began to rise a little and it has steadily crept up till a month ago at the age of seventy-seven, it was 170-100 millimetres. His general symptoms have altered little; he has remained intensely introspective and always has his little list of extraordinary happenings and sensations carefully noted down, but he remains at work and seems almost as good a "life" now as when I first saw him, except that he now has a little albumin and a few casts in his urine. This, with his rising pressure, suggests that he now has some degree of diffuse hyperplastic sclerosis.

The Significance of Diastolic Readings.

In dealing with this type of low pressure, particular attention should be paid to the diastolic pressure, a fact which I think we have all realized

more definitely in recent years. A low pulse pressure is always suggestive of a feeble heart struggling against peripheral resistance and indicates a very cautious prognosis.

I have such a case under my care at present.

A man aged forty-nine years, holding a responsible position, saw me seven months ago on account of giddy attacks and two faints in the previous three months. His pulse-rate was sixty-six, the vessel walls were satisfactory, the heart was normal in size, but the sounds were very soft. The blood pressure was 115-90 millimetres. His only previous illness had been influenza three years before, but he had shocking teeth with extreme apical absorption of the roots of eight of them. There was no response to the Wassermann test. Since then he has had his mouth put right and had a long sea voyage, but the blood pressure three weeks ago was 112-90 millimetres.

The next case seems to be responding a little better to treatment.

A man, aged fifty years, found that when he walked a short distance, he had pain on the point of the left elbow, passing down to the hand and then felt a choking feeling in his chest; after stopping a moment, it would pass off. A doctor had taken his blood pressure and told him it was unusually good for his age and that he need not worry about his heart. I found a normal cardiac dulness, but soft sounds, fair vessels and a pressure of 120-95 millimetres. The urine contained a trace of albumin and some hyaline casts. During the next few weeks his blood pressure was always about the same, except on one day when it was 110-80 millimetres. I advised a good holiday with cautious, graduated exercise and when I saw him seven months later (a few weeks back), he was not having the pain and his blood pressure was 135-85 millimetres.

In the last case I intend to bring under your notice, I had the unique experience of giving a clinical lecture on a case of coronary thrombosis.

A boot repairer, aged fifty years, consulted me on account of pains in his chest like an octopus gripping him all the time; "his throat seems to close down and pains shoot into the arms." Amyl nitrite gave only temporary relief. The slightest exertion made it worse. He had been quite well till these pains began a month before; they had been much worse the last day or two. He was pale, clammy and seemed likely to die at any moment. The heart was persistently rapid, 120 and all that could be made of the sounds was a systolic murmur in all areas. The dulness was not increased. The blood pressure was 98-90 millimetres. I hurried him off to hospital in a car when he lingered two days. A *post mortem* examination revealed advanced sclerosis of the aortic and coronary vessels and complete occlusion of the left coronary artery.

Cardiac Pain.

Before concluding, I wish specially to refer to cardiac pain. We have no more difficult problems to face than the interpretation of the significance of pain or discomfort referred to the region of the heart. The problem has not been made easier of solution by the juggling with words that has lead to the introduction of that unfortunate term pseudo-angina. There is much yet to be learned on this question, but there is no doubt that a very frequent cause is deficiency in the intimate blood supply of the heart. The value of a prognosis in such a case must depend largely upon our means of assessing not only the state of the cardiac muscles but also the proportion of spastic to permanent obstruction in the arteries. Where the obstruction is due to sudden thrombosis in a previously patent but atheromatous coronary artery, instantaneous death may occur in an apparently perfectly healthy person.

Special difficulty is often experienced in dealing with nervous patients. Undoubtedly in them reflex nervous impulses from the stomach and gall bladder as well as psychic disturbances may lead to spasm of the muscular coats of the coronary vessels, exactly comparable with the spastic condition found in spastic colitis, but the resulting pain is no more a pseudo-angina than is the pain in the colitis a pseudo-colic. In such cases the prognosis will depend entirely upon the previous condition of the arteries and of the muscles that are temporarily deprived of their blood supply.

Hence it is of the utmost importance in all such cases to inquire most minutely into the previous history, heavily underlining in our notes syphilis, acute rheumatism or influenza, a sinister trio responsible for incalculable and too often unrecognized damage to the myocardium.

In some of these cases the sphygmomanometer will be of great assistance, but normal readings should never be allowed to weigh against clinical findings. My own records show again and again that there is cause for greater anxiety on the whole with low pressures than high, especially when the diastolic pressure is disproportionately raised.

If an exhaustive examination leaves us unconvinced that the myocardium and coronary circulation are perfectly healthy, no degree of neurosis should tempt us to treat the symptoms lightly.

I recall vividly an interview last year with the devoted wife of a neurasthenic man of fifty-one, during which I utterly failed to convince her three weeks before his sudden death that his anginal pain was extremely ominous. Smiling wisely she told me that I did not know him and that he always had some new pain somewhere.

It is only by using the utmost care that the physician can hope to avoid making similar mistakes.

References.

(^a) Geoffrey Evans: "A Contribution to the Study of Arterio-Sclerosis with Special Reference to its Relation to Chronic Renal Disease," *Quarterly Journal of Medicine*, Volume XIV., No. 55.

(^b) T. R. Elliott: "Pathological Changes in the Adrenal Glands," *Quarterly Journal of Medicine*, Volume XVIII., No. 29.

THE "MESTIZOS OF KISSER" AND THE PROBLEM OF ACCLIMATIZATION OF THE EUROPEAN RACES IN THE TROPICS.

BY ERNST RODENWALDT,
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PUBLIC scientific errors ought not to remain uncontradicted for a long time. In the literature they are carried on like a chronic disease and thus often are used as unsolid supports of a theory of far-reaching problems.

With regard to the problem of the possibility of European races adapting themselves to the climate of tropical low countries, we see the erroneous opinion to be spread for decades already that on the

island of Kisser (Kissar) belonging to the Timor Archipelago thoroughbred Europeans would have propagated by interbreeding for five or six generations, *id est* with neither imports of fresh blood from the mother country nor mixture with the coloured native races. This experiment on acclimatization would have been brought about through these Europeans being by peculiar circumstances absolutely cut off from European civilization for more than sixty years.

Whereas such like instances of acclimatization in the above-mentioned strict sense are extraordinarily rare, a great importance has always been attached to this so-called fact of the adaptation of several families to the tropical climate in the literature on acclimatization. However, a such like fact does not exist.

The error goes back as far as 1889 and its source is a report of Baron Van Hoevell in the *Tydschrift voor Taal-, Land- en Volkenkunde* (Volume XXXIII). Van Hoevell stayed a short time in Kisser and as well from the aspect of the people living there as from their verbal information he drew the conclusion that some of the resident families were thoroughbred Europeans. He might have grown suspicious already by the fact that these people called themselves "Mestizos," a word which in the official style of the East-India Company positively means an individual of mixed blood, though the admixture of native blood may be very slight.

However, in Van Hoevell's time this error was absolutely pardonable. At that time the laws of Gregor Mendel had not yet been re-discovered. Neither had von Luschans clever words on the *Entmischung* of hybrid races been spoken.

Van Hoevell could not yet know that in the fair and blue-eyed people whom he found in Kisser, he saw the results of dissociations, possibly proceeding according to the Mendelian laws.

Through the anthropological examination of nearly the entire Mestizo population of Kisser, as well as through studying the complete documental material of the Dutch Government of Banda from the years 1668 to 1820 in the Dutch East-Indian Government's "Archives," I have been able to gather an accurate knowledge of these Mestizo families as well of the present as of the past. In the next years a detailed publication will put this material on a typical cross-breeding at the disposal of scientific criticism. I would not have anticipated the results of these studies, but for the fact that quite recently that old error had been very curiously revived again by a paper of J. S. C. Elkington, "The Mestizos of Kisar, Dutch East Indies," in THE MEDICAL JOURNAL OF AUSTRALIA, of January 14, 1922, pages 32 to 34. (The original article was not at my disposal. I relate to the detailed reference in the *Tropical Diseases Bulletin*, January, 1923, page 14. The numerous mistakes in the dates may be put down to the reference.)

Now, I think it desirable that this erroneous interpretation of the facts is forthwith rectified, since the problem of acclimatization has always been a question of great importance for tropical

hygiene and also since these matters are closely related to the problems of heredity and of eugenics, by which at present in biology and in sociology the minds are kept very busy.

A fact is that the Mestizos of Kisser already at the time of their sequestration from European civilization by the Dutch establishment on the island being discontinued in 1819, formed a bastard population of about twelve families in which families already at that time the native blood was represented at least half, but in most cases for a greater part. The last thoroughbred European, Corporal Johannes Ruff, had come to Kisser in 1803 and there forthwith had married a Mestizo girl of preponderately dark blood.

Consequently the events in Kisser cannot possibly be considered any longer as a contribution to the problem of acclimatization, for it has been known for a long time already that descendants of Europeans and of natives of tropical countries, *id est* bastards, are fruitful in the tropics and do not need any adaptation to the climate.

Be it that thus Mestizos lose a great deal of actuality in this respect, they yet regain their interest in another way as a unique source of the problem of cross-breeding among men and thus in a more limited sense for the question to which extent the Mendelian laws may be applied to human races. With regard to this question, I hope to give a parallel to the work of Eugen Fischer on the "Rehobother Bastards" (G. Fischer, Jena, 1913).

Elkington's report, moreover, contains numerous minor mistakes. Gabriel Joostensz, whom he calls the first European child that was born in Kisser (fifty years before already children of Europeans had been born in Kisser), was not a European, but a bastard. So was his father, Joh. Wilh. Joostensz, who from 1803 to 1807 (not 1817 as Elkington supposes through having misinterpreted a document) was Resident of Kisser and also his mother, Gardiana Gercke. In the records of the "Company's officials" of 1803, both are expressly mentioned in the rubric "Mestizos." Also Joh. Wilh. Joostensz's parents, Carolus Joostensz and Isabella Vervis, were bastards, descendants from bastard families in Banda. The European fathers (besides of European mothers there is no question with regard to the Mestizos of Kisser) came to Banda in the first half of the eighteenth century.

The above-mentioned Gabriel Joostensz, born in 1789, married in Kisser a native of pure blood, Sibela Johannis. Accordingly even the Joostensz family, reported by Elkington as being of pure blood, from its arrival in Kisser had more native than European blood. And this is the case with all those families in Kisser which for the greater part descend from European soldiers of the Company who were stationed in Kisser in the eighteenth century. The half-caste sons of these were soldiers as well and married the half-caste sisters of their friends. However, through the exclusiveness of these families, priding themselves on their European origin, a separate strain, a bastard strain, arose, in which never another generation of Europeans has

appeared. Afterwards, now and again these families even got supplies of coloured blood, so that at present the blood of the members of this Mestizo-strain, living in Timor and in Kisso contains more of the dark than of the white component; only a few members of these families have equal parts of European and of native blood and one man in the series of his ancestors shows only fifteen natives against seventeen Europeans.

All the conclusions drawn by Elkington and other authors with regard to the problem of acclimatization from the unimpaired existence of the Mestizo families in Kisso are crumbling down, since there is no question of the propagation of thoroughbred Europeans in the tropics, but of a pronounced cross-breeding of such a degree of purity as will seldom be found.

Besides may be mentioned that Elkington is mistaken on another point, *videlicet* his report on endemic malaria with regard to Kisso. Very peculiarly the island is absolutely free from malaria and already in this respect as a tropical low country takes a separate place. Accordingly for that reason already conclusions drawn from condition may not be applied to tropical countries in general.

TREATMENT OF SYPHILIS BY BISMUTH SALTS.

By L. P. CRIVELLI, M.D.,

Clinical Assistant at the Surgical Out-Patient Department,
Melbourne Hospital.

BISMUTH has been known for a long time (Balzer, 1889) as a possible therapeutic agent for syphilis, but its toxicity was such that no use was made of it. Lately Sazerac and Levaditi, taking up the work of Sauton and Robert on spirochaetal diseases of fowls, evolved a treatment for human syphilis with the tartro-bismuthate of potash and soda.

Although this report is somewhat premature as regards experience and late results, I think it is justified by the importance of this treatment, in view of the fact that it can be applied without the slightest risk to all patients including those who react dangerously to arsenic. And at the same it appears to be as powerful a spirillicide as arsenic and its administration is simple in the extreme.

Given by intramuscular injection with the usual precautions of asepsis, it is painless, non-toxic and immediately powerful in its action. Its local reaction is transient and consists in a slight stiffness of the muscle. It has no general reaction.

After a single injection ulcerations and enlarged glands are often reduced in a few days and rapidly disappear with further treatment. Spiromata disappear from the ulcers in one or two days and a series of twelve injections is usually enough to remove the power of the serum to react to the Wassermann test. Saturation is announced by a very benign stomatitis, resembling mercurial stomatitis, with a blue line along the gums and patches on the cheeks. If the treatment is pushed, this appears about the ninth or tenth injection, but with injec-

tions once a week it does not appear at all. Elimination is slow and occurs through the urine, sweat, saliva, faeces and bile. Elimination through the urine begins in about twenty hours and may persist for twenty-five days. If the treatment is intensive, albuminuria may be produced; this disappears on spacing the injections. None of my patients have had albuminuria.

The following typical cases illustrate the special value of bismuth in patients intolerant of nov-arseno-benzol and its action on the result of the Wassermann test:

Case I.—Mr. C. had a chancre in 1920. He was treated by twelve injections of nov-arseno-benzol. As a result the serum failed to react to the Wassermann test. In June, 1922, he had ulcers in his mouth; lymphatic glands in his neck were enlarged and there was an acneiform eruption on his face and shoulders; he had symptoms of hepatic insufficiency. The serum yielded a Wassermann reaction. Three injections of nov-arseno-benzol were administered; the drug was badly tolerated. The last injection led to a very dangerous reaction. I then gave him injections of bismuth. Three days after the first injection the enlargement of the glands and ulcers had disappeared and after the twelfth injection the blood serum failed to react to the Wassermann test. Three months later the serum still failed to react.

Case II.—Mr. C. was infected in 1917. He had seven injections of "Luargol." His serum yielded a Wassermann reaction. He had three more injections of "Luargol" and twenty subcutaneous injections of mercury. The serum lost its power to react to the Wassermann test. In 1920, the serum again gave a reaction. He then had eight injections of nov-arseno-benzol of which the last three were badly tolerated. The eighth gave rise to an alarming reaction. The serum still reacted to the Wassermann test. In July, 1922, bismuth treatment was begun and after the twelfth injection the serum reacted feebly to the test. The patient has not since reported.

Case III.—Mr. M. had a chancre in 1920. He had four injections of nov-arseno-benzol and six of grey oil. Two Wassermann tests were applied to the serum in June and May, 1922; the result was a "good partial" reaction. There were no lesions. After ten injections of bismuth, there was no longer a response to the Wassermann test.

Case IV.—Mr. C. had a chancre in 1919. He had six injections of "Luargol." After this the blood serum twice failed to react to the Wassermann test and then it yielded a "feeble partial" reaction in 1922. After ten injections of bismuth the blood serum again failed to react to the Wassermann test.

Case V.—Mr. B. came to me in November, 1922, with a well developed secondary papular rash. After ten injections of bismuth the rash had gone leaving very faint patches; the gums showed a "bismuth line." The reaction to the Wassermann test was "feeble partial." After six more injections all trace of the rash had disappeared. The serum still gave a feebly partial Wassermann reaction. He had six more injections. The response to the test was unaltered. The patient is to report for further treatment.

Reports of Cases.

APPENDICITIS COMPLICATED BY SEPTIC PORTAL THROMBOSIS.

By A. W. FARMER, M.B., B.S. (Melb.),
Honorary Physician to Out-Patients, Perth Hospital,
Perth.

THE following case is thought to be of interest owing to the comparatively rare condition of apparent septic thrombosis of the portal vein and because the patient ultimately made a complete recovery.

The patient, S.C., female, aged twenty-five years, called me to see her on the morning of March 11, 1923. She com-

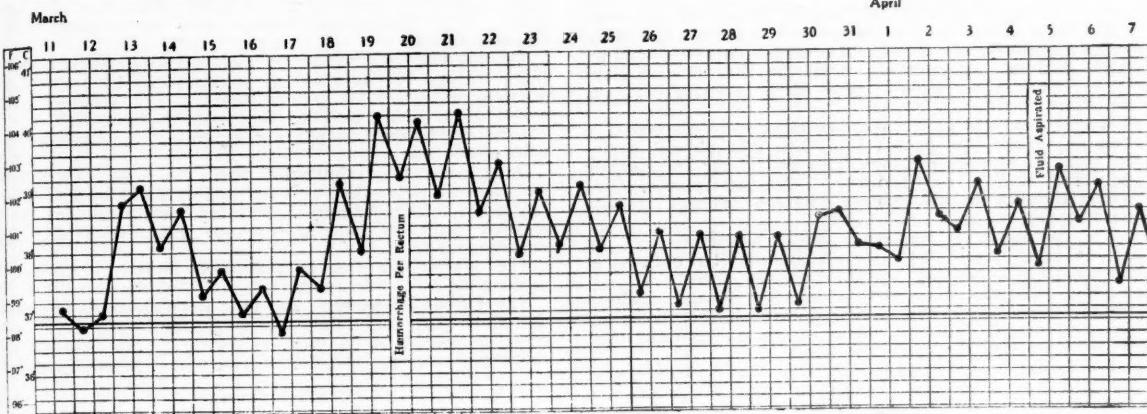
plained of acute and continuous pain in the abdomen for the previous twelve hours. The pain was situated in the epigastrium and across the lower part of the abdomen and was severe on the left side. The pain did not radiate. She had vomited once during the night; the vomiting had been induced in order to ease the pain. The bowels were constipated. There was no previous history of any such attacks. There were no signs of jaundice. Micturition was normal. The menses had been regular; the only alteration from normal was that the last period lasted only two days a fortnight before. There had not been any haemorrhage between the periods, but during the last week there had been slight leucorrhœa.

She had one child, aged one year and two months. The confinement and puerperium had been normal.

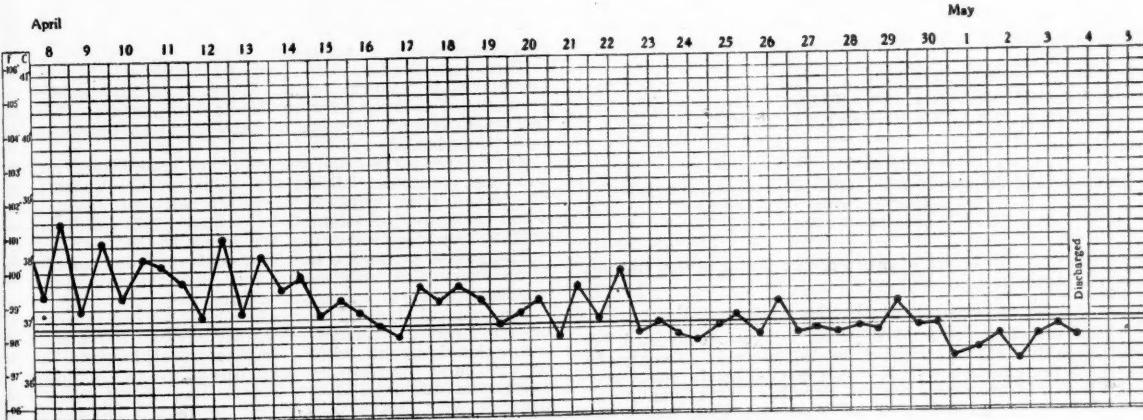
Ture and pulse-rate were rising and the right side of the abdomen was rigid with the maximum tenderness over McBurney's point. I advised operation and two hours later opened the abdomen through an incision over the lower portion of the right rectus. The appendix was congested and completely bound down by adhesions, the lumen being occluded just beyond its mid-point. The appendix was removed and the pelvic organs were found normal. The abdomen was closed. The appendix on section showed acute ulceration proximal to the obstruction with some pus lying in the lumen.

On the next evening the patient's abdomen became very distended; she was parched and distressed with rising temperature and pulse-rate. Calomel (0.3 grammes) was given after a gastric lavage and six hours later a high

April



March



April

May

TEMPERATURE CHART OF DR. FARMER'S PATIENT.

On examination, the tongue was found to be moist and particularly clean. The heart and lungs were clear. The abdomen moved well on respiration. It was somewhat rigid on the right side only both in the upper and lower regions. There was tenderness in the epigastrium all over the right side, with perhaps the maximum tenderness in the right iliac fossa below McBurney's point. On vaginal examination the uterus appeared to be normal. There was tenderness in both fornices with some fullness in the left.

I immediately had her removed to a private hospital with the provisional diagnosis of appendicitis, salpingitis or ectopic gestation. That afternoon after the bowels had been washed out, the patient was more comfortable, the temperature had returned to normal and the pulse-rate dropped from 100 on admission to 84.

The next morning the pain had increased, the tempera-

tum with one cubic centimetre of "Pituitrin." Brandy was given by mouth to combat the exhaustion. The bowels were well open after the enema with complete relief of the distension.

All went well until the sixth day after operation, when the temperature and pulse-rate again began to rise; she became restless and complained of pain in the right flank. That evening a round worm measuring twenty centimetres (eight inches) was passed by the bowel.

The next day she passed 230 cubic centimetres of dark blood by the bowel and a mass was palpable in the right hypochondrium. The patient was also intensely jaundiced and her condition was rapidly becoming critical.

After consultation with Dr. F. L. Gill, it was decided again to open the abdomen, which Dr. Gill did one hour later by a muscle splitting incision in the right flank.

after examining the old scar which was normal. High up in the right kidney pouch a pocket was opened containing dark blood and a small quantity of purulent fluid. It was impossible to locate the source, so two large drainage tubes were inserted and the abdomen closed.

Her condition was by this time desperate and remained so for the next three days. The intense jaundice persisted for this period and then began to diminish; the respiration was sighing and rapid and her pulse-rate was in the region of 150 and was barely perceptible in spite of the administration of saline solution, "Pituitrin," strychnine and brandy. There were no true rigors at any time.

After the third day her condition improved somewhat with free discharge of blood-stained pus through the tubes. She steadily improved until the thirteenth day after the operation, when her breathing became distressed and more rapid, with elevation of temperature and pulse. On examination of the chest dulness and diminished vocal resonance were detected and fremitus over the base of the right lung extending upwards to just above the angle of the scapula.

On the next day as she was becoming more distressed, a record syringe was passed into the right pleural cavity between the seventh and eighth ribs posteriorly and slightly purulent fluid was withdrawn. The cavity was then aspirated and 450 centimetres (sixteen ounces) of fluid withdrawn.

The patient was then much more comfortable and on the next day passed 280 cubic centimetres (ten ounces) of blood-stained, offensive material by the bowel.

From this day she gradually improved and made a complete recovery. The discharge through the abdominal wound lessened and the wound healed one month later. At no time was the discharge faecal.

My thanks are due to Dr. F. L. Gill, who assisted me at the first operation, saw the patient with me later, performed the second operation and attended the patient with me from that date. Also to Dr. Theodore Ambrose, who saw the patient in consultation with us the day after the second operation and to Dr. Lionel Robertson for administering the anaesthetics.

A CASE OF TOTAL DEAFNESS AND APHONIA FOLLOWING SEVERE SHOCK.

BY RICHARD FRANCIS, M.B., Ch.M.,

Honorary Assistant Ear, Nose and Throat Surgeon to Sydney Hospital and St. Vincent's Hospital, Sydney.

THIS case is, I think, of interest on account of the findings in the aural examination.

History of the Condition.

Mrs. O., *atatis* thirty-five years, married, consulted me on June 21, 1921, with the following history. Twenty-one months previously the patient had been severely burnt over the whole of the upper part of her chest, neck, hands and head, with the exception of her eyes and nose, which she instinctively protected with her hands. The burns appeared to have been for the most part of the second degree and both ears were completely destroyed. The patient spent nine months in hospital where skin grafting was successfully performed.

Soon after the accident a painless double otorrhoea commenced; the left soon ceased, but the right continued for several months. Two months after the accident an impairment of hearing was noted and this gradually increased until three months later, when this deafness appeared to be total. With this total deafness the patient ceased to speak, except on two occasions, when greatly excited. Her mentality also became affected; she became morose and took no interest in her surroundings. She spent the next ten months in a mental hospital, when she was discharged mentally sound, but still deaf and dumb.

The family history showed the father to have died in an asylum; one sister had been an inmate of an asylum for puerperal mania with recovery in a few months.

The patient herself had been twelve months in an asylum previously with puerperal mania followed by complete recovery. There had been no other previous illnesses. The husband appeared healthy and the patient had had four healthy children and no miscarriages.

Condition of the Patient.

The patient was very thin and had the vacant facial expression of one totally deaf. Otherwise she appeared mentally alert and read questions and wrote her answers quite freely. There were no abnormalities seen in the nose, naso-pharynx and throat. The larynx also was normal, the vocal cords being freely movable. There was some scarring of the *membrana tympani* of the left ear, while a small central perforation was present in the right *membrana tympani* with a slight discharge of clear fluid. The Eustachian tubes were both patent to catheterization.

The hearing tests yielded no response to air conduction; there was no response to any tuning forks by bone conduction, except that patient thought she momentarily heard a 256 d.v. fork over the right mastoid area. An "Acousticon" (voice amplifying apparatus) was not heard with either ear.

On testing the labyrinths, there was no vestibular response to either hot or cold caloric tests which were prolonged for ten minutes. Turning tests were not performed with as patient became very alarmed and unmanageable.

The Wasserman test to the blood yielded a strongly positive (+++) reaction.

The husband was informed that the condition was for the most part functional, but a guarded prognosis was given in regard to the hearing owing to the absence of vestibular response and the positive Wassermann result.

Clinical Course.

Financial reasons necessitated the patient's immediate return to her home in the country. She was told that she would get better and was instructed in voice drill getting her vocal resonance by a hand placed on the thorax. Increasing doses of potassium iodide were exhibited.

Three months later the husband reported a great improvement in general health, the gain of 12.7 kilograms (two stone) in weight and ability to whisper conversations instead of entirely writing as before, but no improvement in her hearing.

Six months after I had seen her, her hearing and speech suddenly returned, it being first noted by her husband on his return from work at night. I saw her again then, when examination showed a healed right ear and a normal response to hearing and labyrinthine tests.

The potassium iodide has been continued and her health is in every way still satisfactory and the total gain of weight is over 19 kilograms (three stone).

The clinical signs in this case resembled the severe type of "shell shock" deafness which occurred in the war, with a functional aphonia added. In those cases, however, a loss of vestibular reaction to stimulation usually signifies a permanent deafness. I can find no record of a functional deafness with recovery, in which the patient did not react at all to prolonged vestibular stimulation.

The clinical signs did not in any way suggest syphilitic disease of the labyrinth. The potassium iodide undoubtedly did benefit her general health; and my conclusion is that this improvement enabled the patient to overcome a purely functional condition.

ACUTE SIGMOIDITIS: PERFORATION AND GENERAL PERITONITIS FOLLOWING RECTAL INJECTION.

BY COLIN MACDONALD, M.B., B.S. (Melbourne),
Warracknabeal, Victoria.

THOUGH the notes of this case are somewhat incomplete, it is deemed of sufficient interest to report.

H.T., *atatis* forty-five years, a retired farmer, of medium build, not obese, had always enjoyed good health, though for the past few years he had been troubled with obstinate

constipation. On November 1, 1922, he had attended a country wedding at which he had partaken liberally, amongst other things, of German sausage. Two days later he was seized with pain in the lower region of the abdomen, associated with severe diarrhoea and tenesmus. Though the stools contained mucus, there was no visible blood. The patient attributed his condition to the eating of the German sausage.

Abdominal examination revealed but little evidence of peritoneal inflammation, though some tenderness on deep pressure was elicited by his medical attendant in the lower portion of the abdomen, more severe perhaps on the left side. The diarrhoea and tenesmus improved a little with the exhibition of bismuth and opium, but two days after the commencement of the illness the symptoms reappeared with the abdominal pain more severe: some blood in the stools now appeared to the naked eye.

That evening his wife who was acting as nurse gave him a rectal injection of soap and water. In the middle of this procedure, the patient volunteered the information that "he heard a distinct click, as if something inside him had burst." He was immediately seized with excruciating pain in the lower segment of the abdomen which later spread over the whole abdomen. When seen in consultation some hours later he presented all the typical symptoms of general peritonitis and was hiccuping.

Operation was performed nine hours after the very severe pain appeared. The abdomen was opened by a right inguinal incision and the cavity was found to be filled with foul smelling, purulent fluid. The appendix, though sharing in the general peritoneal inflammation, was otherwise normal. Another incision was made below the umbilicus in the middle line and the descending and pelvic colon were examined. This viscus was much thickened, acutely inflamed and oedematous. A minute pin-hole perforation was detected about the middle of the sigmoid colon. It was this opening that had allowed the ingress of colonic contents into the general peritoneal cavity with subsequent infection by the *Bacillus coli communis*. There was no constriction due to a malignant growth nor any cicatricial constriction along the course of the lower gut. The operation was completed as rapidly as possible, but the patient died twelve hours later.

Comment.

(i.) The diagnosis of acute sigmoiditis has to be considered when severe diarrhoeal tenesmus with lower abdominal pain appears in a middle-aged person the subject of chronic constipation. Apparently the constipation had predisposed to the chronic sigmoiditis evidenced by the thickened colon. Possibly something that he had eaten at the wedding had kindled the acute attack.

(ii.) The danger exists, when this condition is suspected, of allowing rectal injections, *exempli gratia* a starch and opium enema, especially when unskillfully given. There appears no doubt that the copious and vigorous injection given to this patient produced the perforation at that particular time. It is quite probable, however, that in any case with such an acute inflammation, spontaneous perforation would have occurred.

(iii.) The rapidity of the fatal ending is also worthy of note. In this case it occurred only twenty-two hours after perforation, though operation had been performed within ten hours of the catastrophe.

I am indebted to Dr. B. P. Donald for permission to publish this case.

Reviews.

DISEASES OF THE THYREOID GLAND.

DR. J. ARTHUR E. HERTZLER's book entitled "Diseases of the Thyroid Gland" is a moderate sized work which has emanated from a small country hospital.¹ Such a hospital

¹ "Diseases of the Thyroid Gland," by Arthur E. Hertzler, M.D., F.A.C.S., with a chapter on "Hospital Management of Goiter Patients," by Victor E. Chesky, A.B., M.D.; 1922. St. Louis, U.S.A.: C. V. Mosby Company; Crown 4to., pp. 245, with 106 figures. Price: \$5.00.

as a rule draws its patients from its immediate vicinity and the surgeon has to live amongst the individuals on whom he has operated. The author maintains and we are inclined to agree with him, that in these circumstances conclusions drawn from the end results of treatment will be more reliable than those drawn from the statistics of the specialist in a large city who does not as a rule see his patients after their recovery from operation.

Notwithstanding the many fascinating theories associated with goitre, the author from his review of literature and as a result of his own work has come to the conclusion that the pathological findings other than those in the thyreoid gland itself, are few, inconstant and unimpressive. He is of opinion that a normal thyreoid has not yet been demonstrated in a patient with goitre. The present day knowledge of the pathology of goitre, according to the author, points to the thyreogenetic nature of the disease.

He finds that the histological picture of a normal thyreoid gland as given in text-books is not correct. The thyreoid is labile in its function and structural changes may accompany "the wide excursions of its physiological responses."

He shows pictures of microscopic slides of normal thyreoid glands to illustrate a varied degree of development of interacinal cells in relation to the acinal cells in this ductless gland. He compares these interacinal cells to the interstitial cells of the pancreas, but says the relation of the interacinal cells of the thyreoid to its acinal cells is closer than in the pancreas, for the interstitial cells of the thyreoid, unlike those of the pancreas, may under certain circumstances form acinal cells. The source and significance of these cells he says "is an unexplored field." From the microscopic study of material obtained from a series of patients and the comparison of these studies with the clinical history, he finds that an abnormal activity of interstitial cells is associated with a definite type of goitre very like the typical Graves's disease, which he says is the *forme fruste* type of Charcot and Marie. In these patients nervous symptoms of an indefinite type predominate and there is little tendency to remit or recover or become progressively worse. There may be one or more of the symptoms and signs, exophthalmos, thyreoid enlargement, tachycardia, tremor. Evidence of metabolic disturbance is wanting. In these patients operation is very disappointing or of no avail. The surgeon must be on the alert to distinguish the condition of these patients from the true toxic condition in which operation is most satisfactory.

Hertzler does not think that "simple" goitre is as innocent of toxic action on the heart muscle as it is supposed to be and he finds many patients with so-called "innocent goitre" who have diseased hearts. He believes that these are due to some obscure toxicity of the goitre rather than to any mechanical pressure on vessels. He seems to think that practically every simple goitre sooner or later becomes toxic. He says: "In my experience a patient long the subject of a goitre dies of it sooner or later." With this it is difficult to agree. Such a pessimistic view cannot be accepted although we are convinced that a great many more patients with simple goitre have symptoms of disturbed metabolism than was formerly thought to be the case.

In a chapter on diagnosis the different symptoms and signs of all forms of goitre and the many so-called "goitre tests" are very fully outlined in an interesting way. He believes that "basal metabolism is only of value if taken as an adjunct to a careful clinical examination." He says "it appears of value in the inverse ratio to the clinical experience of the surgeon."

The various operative measures are described very fully with many beautiful illustrations by Tom Jones. The author adds many personal operative experiences which will be found useful. He does not think that psoe ligation is of any value. In operating on large colloid goitre he leaves the posterior part of each lobe and folds the residuum from above downwards and anchors it in position with stitches. In this way he leaves a normal looking lobe.

Hertzler thinks that the end results of the operation for exophthalmic goitre as derived from a study of statistics

are far too optimistic and that the permanent value of the treatment is over-estimated.

He emphasizes a fact with which we thoroughly agree, and that is that the patient after thyroideectomy for a goitre causing symptoms of hyperthyroidism should be under medical treatment for a long time. This is too often neglected or forgotten owing to the dramatic improvement which usually follows operation. It must not be forgotten, he says, that the portion of thyroid still remaining is diseased.

There is a chapter on the hospital management of goitre patients by Victor Chartley which is most illuminating.

To those surgeons who are interested in goitre, the book will prove very interesting reading, because the author studies the subject from rather a fresh point of view and his observations are original and thoughtful. To those who want to learn about goitre, the book will be found a complete and masterly monograph on that subject, notwithstanding the fact that the author is occasionally a little pessimistic.

THE NOSE AND THROAT.

The second edition of Parker and Colledge's "Guide to Diseases of the Nose and Throat," now before us, shows considerable changes from the first edition in the way of additions, alterations and excisions.¹ This is probably the outcome of lessons taught by the war and valuable researches in this branch of surgery made during the last few years. The book has been especially designed for the use of post-graduate students attending short courses at special nose and throat clinics, the matter being founded on lectures given at the Throat Hospital, London. No more satisfactory volume could be recommended for the purpose. The text is abreast of the most recent advances in rhino-laryngology and the numerous illustrations, invariably clear and explicit, have been increased by many valuable photographs and drawings. An important inclusion is that of Wilfred Trotter's technique for removal of carcinomatous of the nasal sinuses and pharynx; this is accompanied by special diagrams. Much attention has been given to consideration of the nasal neuroses, particularly hay fever, paroxysmal rhinorrhoea and asthma.

In regard to treatment of the reflex neuroses the authors state that the employment of Francis's method has had the happiest results in many patients at the Throat Hospital. The subcutaneous injection of paraffin for the treatment of nasal deformities is described, although various investigators who have made careful studies of tissue removed from the site of former injections, have found evidence of much tissue irritation and possibly early neoplastic formation.

The text is conveniently arranged into six sections. The first deals thoroughly with general considerations—methods of examination, of local treatment, formulae, operative treatment, preliminaries and after-treatment of internal operations, external operations and diathermy. The next section deals with the complications of the upper respiratory tract in the course of specific fevers, chronic infective diseases and in organic and chronic constitutional disorders. The sections following deal with diseases of the nose, naso-pharynx, pharynx and oesophagus and larynx. The authors make no attempt to enter into the discussion of debatable points of the subject, although alternative views and methods receive attention. Considerable space is given to endoscopic technique which takes a prominent place nowadays in the diagnosis and treatment of laryngeal, tracheal, bronchial and oesophageal affections. The book is well bound, attractively printed and of a size convenient to handle. For the student and general practitioner it can be recommended with confidence.

¹ "A Guide to Diseases of the Nose and Throat and Their Treatment," by Charles A. Parker F.R.C.S. (Edin.) and Lionel Colledge, M.B., F.R.C.S.; Second Edition, 1921. London: Edward Arnold; Demy 8vo., pp. 553, with 241 figures in the text.

PARASITIC DISEASES OF THE ABDOMEN.

Some years ago Professor A. Albu, of Berlin, started a series of monographs on digestive and metabolic diseases. Competent authors were selected to write on subjects of practical interest and many of their contributions were very valuable. In recent times reference has been made in our columns to some of the monographs published in 1921 and 1922. The third fasciculus of the eighth volume has been compiled by Professor Hermann Kehl on the "Surgical Diseases of the Abdomen Caused by Parasites."¹ The author has been singularly unhappy in the choice of title, for it required a very vivid imagination to reconcile the attribute "surgical" as a quality of a disease. From the text it appears, however, that he really means the surgical treatment of parasitic diseases of abdominal organs and tissues. He is equally unhappy in the method of presentation of his material. There are no indications of system and no summaries of each chapter, so that the reader has to plough through heavy fields of solid matter, relieved only by an inconsistent interpolation of smaller (brevier) type, to arrive at any conclusion. The contents are highly interesting and for this reason the author's failure is all the more to be regretted. Moreover, he reveals himself as a doubtfully competent critic of the medical treatment of the afflictions coming within the scope of his brochure. He ignores English and Australian literature. In one place he refers to the work of one MacLean who was, it seems, attached to the German Navy in Chinese waters, and enters this name in the bibliography as Lean!

The first subject attacked is amoebic dysentery. He states that surgical treatment of amoebic dysentery is required when medical treatment has failed. The physician has to determine the necessity. The chief method is the establishment of an artificial anus in the caecum in order to exclude the whole of the colon. No faecal material may pass over the mucosa of the caecum at all. In many instances the appendix must be removed, especially when the caecum is affected. He deals further with the surgical treatment of dysenteric abscess of the liver. He has nothing new to say, but he provides a relatively reliable summary of the knowledge and experience of clinicians in every country.

Bilharziosis and infestations with cestodes and nematodes next claim his attention. The haematobium does not provide him with much discussion, but he has more to say concerning *Ascaris lumbricoides*. His account of the controversy concerning the frequency of this worm in the causation of appendicitis is fair and judicious. It is very easy to attach undue importance to a relatively common invader of the human and animal body. The rôle of the surgeon in regard to these affections is also easily exaggerated. Of course, no one would be prepared in these days to question the necessity of operative treatment of appendicitis, whether it be due to a microbial infection or to ascaris. In the same way the surgical treatment of perforative peritonitis or intestinal obstruction is not altered by the fact that these worms are involved in the causation. The author discusses the question of the association of gall stones and *Ascaris lumbricoides*.

He has a long chapter on the surgical treatment of echinococcus disease. This chapter is weak. The author would be well advised to study the Australian literature of this subject. Apart from the failure to recognize the authoritative work carried out in the Commonwealth in regard to the surgical treatment of hydatid cysts of the liver and other abdominal organs, the author displays the narrowness of his perspective by attributing the complement fixation test to Weinberg. Hamilton Fairley's priority cannot be challenged in this irresponsible manner. The whole monograph would have been more valuable had it been based on a wider knowledge of the subject, had it been well arranged and had it been better written.

¹ "Die durch tierische Parasiten hervorgerufenen chirurgischen Erkrankungen der Bauchhöhle" (The Surgical Diseases of the Abdomen Caused by Animal Parasites), von Professor Dr. Med. Hermann Kehl, Heft 3, Band VIII der Sammlung zwangslässiger Abhandlungen aus dem Gebiete der Verdauungs- und Stoffwechsel-Krankheiten. 1922. Halle an der Saale: Carl Marhold Verlagsbuchhandlung; Royal 8vo. Price: 11d.

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The Hospital Patient and the Public.

IN these days of general enlightenment the public demands of the daily press information concerning health and disease. Science is every man's property and the medical profession has no monopoly of knowledge. It is true that the details of pathology, of physiology, of immunology and of morphology are so complicated and intricate that the untutored amateur is incapable of grasping more than the general elementary principles. The daily press should offer to its readers popularized accounts of the more important processes governing health and untechnical descriptions of advances in our knowledge of disease. As a rule the daily press prefers to substitute a sensational and often wholly imaginary dissertation on an untried method of treatment of a common disease or a garbled record of the claims of some medical personage on the other side of the world who seeks notoriety by proscribed methods. Mild sensations are provided by the daily reports of the sufferings of patients admitted to public hospitals. Few of our daily newspapers are prepared to engage the services of reliable medical correspondents and it is therefore not surprising to read the extraordinary trash that is contributed under the guise of science. This matter should be published anonymously, but it needs careful control by experts.

The news paragraph concerning patients in hospitals has no justification at all. The usual method adopted is for a correspondent to call at the hospital and to ask for the latest information concerning accidents and surgical wonders. As a rule, the information is given by someone more or less well informed. In one of our great metropolitan hospitals a short time ago the medical superintendent gave orders that this information was not to be given. The result was that a powerful newspaper conducted a campaign of persecution of this admirable institution. It is perhaps not usually recog-

nized by medical officers attached to our public hospitals that the bond of secrecy concerning the medical affairs of patients is the same with hospital as with private patients. The newspapers have no right to any information concerning a hospital patient, unless the patient or his relatives choose to give it. There is no reason because a man is poor and has to seek institutional aid, that his private affairs should be published to the whole world. Moreover, it is highly objectionable to have the name of the house surgeon or house physician mentioned in connexion with this breach of confidence. If the medical superintendents of all our large hospitals would determine simultaneously that the practice of giving newspaper reporters any information concerning patients should be stopped, no difficulty would be experienced. It would be useless for a newspaper to adopt the expedient of attacking the institution.

Unfortunately the cause of this unnecessary and deliberate offence against a professional tenet must be sought within the walls of the hospitals themselves. The reporters want "copy" and cannot be blamed for trying to obtain it. Sensationalism pays. The harrowing details of the fate of the victim of a severe accident seems to be appreciated by the reading public. It may be morbid taste, but the newspaper proprietors and managers appraise it at its selling value. Otherwise the lurid and nauseating details of murder and assault cases which loom so largely, especially in the evening papers, would not be published. In nearly every large hospital there is an organization of propaganda embracing every means of attracting the sympathy and generosity of the charitable. In a recent issue of *Service*, a propagandist publication of the Sydney Hospital, there is a whole page of short reports of casualties in which the names and in some cases the addresses of the patients are given. If it is necessary to provide the public with information concerning the nature of the injuries sustained by the patients admitted to the institution, this could be done without a disclosure of any names. It is difficult to believe that this information has any value in attracting contributions. On another page there is a highly laudatory and quite unnecessary article on the doings of a practitioner

recently returned to Australia. This article must, we feel sure, be regarded by the practitioner in question as objectionable and undesirable. From the irresponsible manner in which information of both kinds is handed out to the public in this publication, it would appear that the hospital authorities are parties to the practice of denying their patients the privileges of privacy and professional secrecy which they have a right to expect. The combined action of medical superintendents suggested above would be futile, unless supported by a determined effort to prevent the lay managers of the hospitals from divulging these essentially private matters. It is unlikely that there would be any resistance on the part of the members of the boards of management to a reform of this kind. The interests of the hospitals would not be damaged by the elimination of the personal element in their appeals to the public.

THE GLANDS OF INTERNAL SECRETION.

IN the course of a quarter of a century an immense literature has arisen in connexion with the glands of internal secretion. It is correct to describe this process as one of disjointed collection rather than of deliberate accession. From the physiological point of view there has been a steady but painfully slow progress in the study of the relation of structure to function. For long biochemical investigation failed to penetrate into the realm of these evasive organs. Physiologists gathered information partly from direct experiment on lower animals from whom part or the whole of these glands was removed and partly from clinical observations controlled by *post mortem* evidence of pathological lesions of these structures. The ingenious experimental work of Horsley, Kocher and others led to the recognition of the association between the thyroid gland and myxœdema and contributed to some extent to the better understanding of the functional activity of this gland, but the mechanism of the action of the thyroid secretion on metabolic processes and its influence on the central nervous system remained obscure. Poehl and others sought a short cut to knowledge by advocating glandular preparations for a long series

of pathological conditions, but this method proved relatively sterile. Brown-Séquard went a little further by assuming that the glands of internal secretion exercised a steady influence over sexual and other functions. Starling was the first to give a real foundation to the modern doctrines of these structures, when he evolved his hypothesis of the hormones. Since then a great deal of scientific experiment has been conducted with a view to the discovery of the chemical nature of the active principles which activitate the digestive and other secretory organs and which serve as regulators to the nervous mechanism of almost every tissue of the body. Simultaneously the physical side of this study has been attacked and some important information has been gleaned. There is, nevertheless, a grave danger in permitting casual clinical observation to be used uncontrolled by exact physical and chemical experiment in the elucidation of the functions of the associated chain of glands of internal secretion. The term endocrine is freely used, although it is not a good one. Much of the literature included under the heading of endocrinology is misleading and devoid of actual scientific foundation. It is of no consequence whether the administration of an extract of the posterior part of the pituitary gland is followed by a seeming improvement in symptom complexes with prominent manifestations of a neurasthenic nature. Neither does it advance our knowledge to a considerable degree to recognize that the same extract exercises an influence over the uterine musculature in atony and haemorrhage. On the other hand it is of importance from a physiological point of view that the controlling influence of the functioning ovarian tissue over the contractions of the uterine muscle has been analyzed and the relation of the oestrous cycle to the type of uterine contractions has been studied. The nature of the hormones sensitizing the uterine musculature has yet to be discovered and until we possess some knowledge concerning the chemistry of these enzymes, it will be impossible to ascertain with exactness how they work. That there is a delicate interaction between the substances elaborated by the pituitary gland and those produced in the Graafian follicle is obvious, but the nature of that interaction is quite unknown.

Another method of attack has been exploited. Since physiological research occasionally indicates a defect in metabolism or a modification of some visible reaction dependent on some impairment of one of the glands of internal secretion, the clinician is stimulated to argue backwards, as it were, tracing the pathological process in the gland by means of this change in metabolism or altered visible reaction. In the present issue Dr. Gordon Cameron discusses the application of two phenomena of this kind in connexion with the function of the pancreas. In the first, the adrenalin mydriasis test, the phenomenon is supposed to rest on the change in the reaction on the part of the pupillary muscle to the active principle of the supra-renal gland when the pancreas is affected. The study involves an indirect experiment on the hormonal action of the adrenal body on the activity of the cells of the islands of Langerhans. It is scarcely surprising to find that the test has a limited application in clinical practice, since clinical methods and indeed pathological methods as well are not yet accurate enough to distinguish quantitatively the degree of impairment of the cells of the islands of Langerhans. In pancreatitis it is improbable that these cells cease altogether to carry out their normal functions. It would thus appear that much more precise instruments are needed to disclose the full significance of Loewi's phenomenon. The second line of attack depends on the recognition of a defect of metabolism, the increase of the diastatic action of the urine in the presence of a pancreatic lesion. The alteration of the diastase content of the urine can be measured with some degree of accuracy, but the value of the information acquired by these measurements is probably limited by two facts. In the first place, the control exercised by the pancreas over the escape of diastase into the urine is but a small function of the pancreatic hormones. In the second place it is probable that the pancreas shares this function with other glands of the chain. Further methods of attack are needed to bring into full view the physiology of these complicated glands. The work demands careful and patient search for detached pieces of evidence. When a sufficient number has been collected, they can be fitted together to make up the key mosaic. It is unlikely

that full and accurate knowledge of the biophysics of these glands will be attained by means of short cuts.

Current Comment.

TUBERCULOUS PERITONITIS IN CHILDREN.

THE story of tuberculosis of the peritoneum in childhood is becoming a peculiarly interesting one. As part and parcel of the great scourge, there is little of special interest in the study of the morbid histology of the lesions. The question of the method of infection was at one time a burning one, but with the mass of experimentation and clinical observation following Robert Koch's dramatic statement at the British Congress on Tuberculosis in London in 1901, the significance of the bovine form of tubercle bacillus has now been established. On the other hand, the relation of the small patient to the infecting agent and the mechanism of defence are matters still awaiting final elucidation. Time brings changes in the reaction of large groups of people to unvarying noxes, while there is no doubt that the virulence of the most prevalent strains of bacilli in a given community undergoes a gradual change. The incidence of tuberculous peritonitis in children is not a fixed quantity. It varies considerably in different countries and possibly in different parts of large countries. Even the mortality would seem to be a variable quantity. Formerly clinicians relying to some extent on impressions formed the opinion that the vast majority of children with tuberculous peritonitis recovered after surgical or other treatment had been carried out. But when the statistical test was applied, it was found that the prognosis was not uniformly good. For a considerable time the children's physicians referred to the surgeon those little patients who were apparently going downhill, while the surgeon took short views and compiled his mortality statistics from his own material. In this way the true prognosis of the disease was not known. More recently, thanks to a more careful and thorough study of the whole problem, the value of the many methods of treatment has been estimated to the great advantage of the patients. A final evaluation has not yet been reached, but it would appear that under conditions like those obtaining in Great Britain the application of surgical means is rapidly losing ground. An interesting contribution to this question has recently been published by Professor H. Finkelstein and Dr. F. Rohr, who have collected the data available in Germany and who have drawn largely from their own extensive experience.¹ In the first place, it has been found that the incidence of tuberculous peritonitis among children admitted to the large children's hospitals varies between 0.2% and 0.36%. In these circumstances it is a little surprising to find that

¹ "Die Behandlung der tuberkulösen Bauchfellerkrankungen im Kindersalter," by Professor H. Finkelstein and Dr. F. Rohr. (*Sammlung zwangloser Abhandlungen aus dem Gebiete der Verdauungs- und Stoffwechsel-Krankheiten.*) 1922, Halle.

tuberculous peritonitis appeared as the cause of death in no less than 5.3% of all children dying in one of the largest institutions for children. The lowest frequency in Germany would seem to be 1.5%. The authors refer to the somewhat conflicting records of the commonest age and of the sex incidence. In their experience tuberculous peritonitis attacks children chiefly between the ages of three and nine years, the age of play. They do not recognize a great susceptibility of either sex.

In order to establish their views in a concise manner, Professor Finkelstein and Dr. Rohr deal with the condition according to the pathological characters of the lesions. The first group comprises that form of tuberculous peritonitis in which the peritoneal exudate is the chief characteristic. The second group, known as the adhesive form, is divided into two sub-groups, the pure adhesive form and the adhesive form with nodular formation. The third group is the well known and highly dangerous ulcerative form. The authors hold that surgeons are usually misled by neglecting to recognize this classification. By distinguishing sero-purulent and caseating types, the disease is not divided into groups with varying fatality. It would seem that the frequency of the three groups varies within wide limits in different clinics. This point is of immense importance, not only because each variety has its special mortality, but because, unless this point is realized, the effect of the different forms of treatment may be entirely misunderstood and wrongly evaluated. Among the Berlin children the exudative form represents approximately 33.5%, the adhesive form 47% and the ulcerative form 19.5%. Experience teaches that spontaneous cure occurs in the first and second form and that the prognosis under any form of treatment is distinctly favourable. When the onset is acute, the prognosis is more favourable than when the disease develops insidiously. Figures are quoted, but it is quite obvious that they have but little significance if stated baldly without reference to the group, the form of onset, the length of treatment and the form of treatment. It has been said that if the little patient is alive six months after the institution of treatment, ultimate recovery is assured.

Professor Finkelstein and Dr. Rohr give a highly interesting account of the three phases of the history of the treatment of tuberculous peritonitis. The first phase is now forgotten. Physicians applied heat locally, leeches and mercurial liniments. The patients were placed on a nutritious diet and laxatives were given freely. In addition, many drugs supposed to exhibit a specific action, such as cod liver oil, creosote, guaiacol and iodine, were given. About the year 1884 the surgical treatment began to find favour. The introduction of air, of nitrogen and of oxygen was held to favour resolutions of the specific process.

There is no doubt that some admirable results were obtained as a result of laparotomy, either alone or combined with one or other of the procedures mentioned. Surgical treatment is still practised to a considerable extent and its advocates claim better results than are obtainable by other

means. As has been indicated above, the justification for this opinion has not been established beyond doubt. The third phase is by no means new. It began by the application of the open-air treatment as it is applied to pulmonary tuberculosis. Soon the healing action of the sun's rays was noted and other forms of irradiation were also applied. Several suggestive reports have appeared, contrasting the effect of this form of conservative treatment with that of laparotomy or simple paracentesis. Wunderlich claimed that surgical treatment yielded a disappearance of all signs for at least three years in 23% of those with the exudative form and in 9.8% of those with the adhesive form. Others published more favourable results. Helio-therapy and good feeding led, according to Rose, to 33% of cures. Guthrie lost seven out of fourteen patients treated by surgical measures and only four out of twenty-seven treated conservatively. An interesting series of cases has been recorded by Bircher. No less than one hundred and fifteen children were treated by Röntgen rays. Of the eighty-three with the adhesive form, forty-six were cured, thirty-two were improved and five died. Twenty-six of these patients were subjected to operation as well as irradiation. This is equivalent to partial or complete success in 97%. Some clinicians have used ultra-violet rays instead of the sun's rays or X-rays. Professor Finkelstein and Dr. Rohr have come to the conclusion that it would be misleading to compile statistics covering pre-war, war and post-war periods, since during the war in Germany the general resistance of the population was so greatly reduced by food shortage, lack of facilities for proper treatment and skilled nursing. The result was that the mortality of all forms of infective disease was greatly increased. Before the war, of eight patients treated, four were either cured or much improved, while two were unimproved and two died. During the war of twenty patients seven were cured or improved, eight died and five were unimproved. In the past-war period of fourteen patients twelve patients were cured or improved and two died. Analysing these results from the point of view of the grouping, they find that of six patients with the exudative form under treatment for six weeks or longer four were either cured or improved. One was subjected to laparotomy, two to paracentesis and exposure to the sun's rays and one to other forms of conservative treatment. One patient died after treatment by paracentesis and one was unimproved after laparotomy. In the group of adhesive peritonitis there were twenty-nine patients. Of these ten were cured, six were improved, nine died and four were unimproved. Laparotomy was performed five times, once in conjunction with exposure to the sun's rays. The last patient recovered, as did one other. Three died. Fourteen patients were treated by exposure to the sun's rays, including one mentioned above who was also subjected to laparotomy and one who received X-rays as well. Seven of these patients were cured, four were improved and three died. Eleven patients were treated by other forms of conservative treatment. Of these two were cured, two were improved, three died (one of morbilli) and four were unimproved.

In the ulcerative group there were nine patients. There were no cures and none was improved, despite the application of all forms of treatment. It would thus appear that as far as the forms of tuberculous peritonitis prevalent in Germany are concerned, irradiation with sun's rays, with ultra-violet rays or with Röntgen rays, together with open-air and dietetic measures, yields excellent results in the exudative or adhesive forms. Operative measures should be reserved for conditions of desperate urgency. They will rarely be required. No form of treatment appears to exert a beneficial influence in the ulcerative form.

REFLEX ANURIA.

THE occurrence of anuria other than that caused by disease of the kidneys or obstruction of both ureters is rare. In anuria caused by obstruction the underlying cause may be pressure or encroachment on the urinary tract, as for example in malignant disease of the uterus. On the other hand, it may be caused by obstruction to the ureter of one kidney when the other is already the seat of extensive disease. In such instances as these there is first of all a condition of hydronephrosis. Suppression of urine comes later. Anuria may be due to hysteria and suppression may be complete and last for several hours or even days. Apart from continuous vomiting no symptoms of uræmia accompany anuria due to hysteria and a copious polyuria immediately follows the period of suppression. Anuria may occur in some forms of shock and collapse. Reflex anuria may be caused by the passage of a catheter through the urethra. In such cases the urethra or the kidneys are often the seat of disease. Instances have been known, however, in which nothing abnormal could be detected on *post mortem* examination. Passage of a stone or a catheter through a ureter may cause inhibition of the excretion of the kidney of the other side. Such a condition is dependent on the operation of the uretero-renal or reno-renal reflex. In these circumstances the second kidney is generally the seat of disease. Legueu and most other observers have held that disease is always present in the second kidney and that if kidneys which were supposed to have been healthy, had been examined microscopically, they would have been found to have been affected by some condition such as chronic nephritis. Although the findings of some observers may be accepted that reflex anuria may take place in a healthy kidney, Henry Morris has stated that it is doubtful whether such an effect ever lasts more than a few hours. He also stated that there was nothing to prove that it had ever led to a fatal result.

An interesting instance of reflex anuria has recently been reported by Drs. J. F. McCarthy, J. A. Killian and A. F. Chase.¹ The patient was a man thirty-five years of age, whose illness began with an attack of renal colic on the left side. This was accompanied by fever of two weeks' duration. Haematuria was present. Subsequently six attacks

occurred but without fever. The urine was apparently normal at first, but later contained albumin and some hyaline casts. The urea, creatinin, sugar and chloride contents of the blood were normal. The uric acid content of the blood, which should be from two to three milligrammes per hundred cubic centimetres, was raised to 4.5 milligrammes. This was taken as being an indication of impairment of kidney function. It should be mentioned that there was nothing in the patient's previous history to account for this impairment. Cystoscopy was performed twice and the ureters were catheterized. There was a slowing of the rate of excretion found on the left side in response to the phenol-sulphonophthalein test. No stone was found by radiographic examination, but in a pyelogram taken of the left side in order to exclude from the urinary tract a shadow was seen in the region of the pelvis of the kidney. The procedures were followed by restlessness and vomiting and in five days by anuria which became almost complete. An attempt to pass a catheter into the left ureter revealed the presence of an obstruction at a distance of six to eight centimetres from the ureteric orifice. The diagnosis was regarded as being either a toxic nephritis as a result of pyelography or else a condition of reflex anuria due to the displacement of an ureteric calculus which failed to show on a skiagram and caused obstruction. The passage of a calculus *per urethram* at a later stage was regarded as confirmatory of the latter view. The urea, creatinin and sugar of the blood were much increased in amount. The carbon dioxide combining power of the blood showed a definite decrease, indicative of an acidosis. An unusual form of treatment by means of the duodenal tube was adopted. Sodium bicarbonate and much fluid was administered by this means. On the production of a condition approaching an alkalosis, as evidenced by the blood examination, the alkaline therapy was discontinued. The patient had an uræmic convulsion and recourse was again had to the duodenal tube. Lavage of the intestinal tract by means of tap water was undertaken. From two to four litres of water were used three times daily. After passage of the stone the patient recovered.

Attention is drawn to the facts that as the nitrogenous compounds and the sugar accumulated in the blood, the percentage of chlorides diminished. As the nitrogenous compounds diminished in amount, the percentage of chlorides rose. Similar observations have been made by Dr. Killian in regard to patients suffering from nephrosis due to mercuric chloride poisoning.

In discussing the condition of this patient Drs. McCarthy, Killian and Chase conclude that the right kidney was suffering from some impairment of function. They also draw attention to the fact that absorption of sodium bicarbonate solution from the upper portion of the intestinal tract took place more readily than from the rectum. They refer to work by Killian and Cherry as confirmatory of this finding. They also express the opinion that the duodenal tube will find a definite share of usefulness in surgery as well as in medicine.

¹ *The Journal of the American Medical Association*, April 14, 1923.

Abstracts from Current Medical Literature.

PÄDIATRICS.

Ulcerative Stomatitis.

EDWARD A. MORGAN (*American Journal of Diseases of Children*, May, 1923) discusses ulcerative stomatitis and its treatment by the intravenous injection of arsenic. The condition is known by several names, such as suppurative gingivitis, Vincent's angina, trench mouth and ulcerative stomatitis. These terms refer to an acute infection of the gums by spirilla and fusiform bacilli which produce certain local signs and general symptoms. The local signs include spongy, bleeding gums and necrotic areas in the immediate vicinity of the teeth. The general symptoms consist in malaise, pyrexia and anorexia. The term ulcerative stomatitis is sometimes used to describe another condition which is somewhat similar. In this other condition small ulcers form on the tongue and buccal mucous membrane, but there is no involvement of the gums. The predisposing causes of ulcerative stomatitis or suppurative gingivitis are lowered vitality and oral uncleanness. The exciting cause is infection by organisms of the Vincent type. It has been shown that the spirillum and the fusiform bacillus are pleomorphic forms of the same organism. Organisms of the Vincent type were found by the author in only one among fifty normal mouths. Reckford and Baker found these organisms in 90% of mouths with diseased teeth. The infection is in many instances autogenous, but is readily transmitted from one person to another. All persons with dental caries must be regarded as carriers of the disease. The onset of the disease is usually sudden. There is general malaise and slight fever. Anorexia is an early symptom and the child may refuse all food. The breath is very offensive. The gums are deep red and purplish and heaped up round the teeth. They bleed readily at the slightest touch. Areas of necrosis may be present along the gum margin. Blood-stained pus may exude from the gums on pressure. If untreated the process extends into the alveolar sockets and the teeth fall out. With the recognition of the disease as due to the spirillum the use of arsenic has been advocated. Solutions of the drug have been painted on the gums. That most commonly used has been Bowman's solution. This consists of three parts of a solution of potassium arsenite, three parts of wine of ipecacuanha and two parts of glycerine. Relief has been immediate but not permanent. In an endeavour to secure more satisfactory results, the author treated twenty-five patients with intravenous injections of arsenical solutions. All the children were over one year of age and the majority were over two years. There was no instance of the disease in a child before the eruption of teeth. In seventeen children no treatment was used

other than the arsenical injection. In eight children Bowman's solution was used as a local application. One child who was suffering from an acute intestinal intoxication, died a few hours after treatment. All the others recovered. Improvement was noted as a rule in two and a half days. The average period required for a cure was between five and six days. In two children recovery was delayed for eleven and thirteen days respectively, both these children required two injections of the drug. In every instance the cure was apparently permanent.

Errors in the Diagnosis of the Acute Fevers.

H. R. LITCHFIELD AND L. H. DEMBO discuss some of the commoner diagnostic mistakes in the diagnosis of the acute infective processes, illustrating many of the errors by case reports (*New York Medical Journal and Medical Record*, March 7, 1923). The early diagnosis of morbilli depends on the presence of coryza, conjunctivitis and cough. At first these symptoms are slight. Koplik's spots appear usually two or three days before the exanthem. Their characters and those of the eruption should be closely studied. They may be mistaken for the herpetic stomatitis of enteric fever. With care this mistake can be avoided. At times Fordyce's disease is mistaken for measles. This is a chronic disease of the mouth and lips, characterized by whitish or yellowish discrete bodies inside the mouth. Acute spasmodic laryngitis often occurs as an early sign of morbilli. The differential diagnosis from laryngeal diphtheria depends on a laryngoscopic examination. The presence of Koplik's spots should prevent the confusion. Diphtheria may be mistaken for scarlatina, especially if the streptococcal exudate is profuse. In scarlet fever the inflammatory reaction of the pharynx is more acute than in diphtheria. If there is doubt, antitoxin should be injected and a culture made. Syphilitic mucous patches may simulate diphtheria. Nasal diphtheria is at times mistaken for congenital syphilis and the reverse. Laryngeal diphtheria is often diagnosed as broncho-pneumonia and at times the distinction is not easy. The laryngoscope settles the difficulty. Retro-pharyngeal abscess is also a source of error. It must be remembered that the dyspnoea of laryngeal diphtheria is progressive and its onset relatively gradual. *Laryngismus stridulus*, enlarged thymus and laryngeal papillomata may also require careful investigation to distinguish them from diphtheria. The diagnosis of scarlatina depends on the congested throat, the strawberry tongue, the fever and the punctuate, erythematous rash. Many rashes simulate that of scarlatina. Of the drug rashes those of antipyrine, copaiba, chloral, cubebes, bromides, salicylates and belladonna may be indistinguishable from the true scarlatiniform rash. Serum rashes may also cause confusion. Inquiry into the history should remove all doubt.

Erythema scarlatinoides can be distinguished from the scarlet fever rash by the absence of the other signs of the latter condition. The scarlatiniform rash of roetheln may cause difficulty. The rash appears on the face and spreads downwards. It is usually coppery in colour. With reasonable care the rashes of *erythema infectiosum*, of *erysipelas*, of *militaria vesiculosa* and of *eczema* can be differentiated from that of scarlatina. Pertussis and tracheo-bronchitis are sometimes confused. One of the greatest diagnostic difficulties in connexion with pertussis is when it attacks infants without the development of a whoop or paroxysm. After an attack of coughing infants often manifest apnoea. The authors also give a few hints concerning the differential diagnosis of variola and varicella.

Hereditary Tylosis.

J. D. ROLLESTON (*The British Journal of Children's Diseases*, January-March, 1923) reports an instance of hereditary tylosis in a child aged two years. The condition as found in this patient was characterized by a symmetrical thickening of the epidermis of the palms and soles. The thickening ended abruptly at the border of the palmar and plantar surfaces and was separated from the normal surfaces by a narrow pinkish halo. The keratosis was more noticeable on the palms than on the soles. The condition had been noticed a few months after birth and had gradually become more pronounced. Exfoliation occasionally took place. The condition in this child was hereditary and had been present in the father's family for five generations. The author refers to the reports of Unna and Gossage on the hereditary character of the disease and states that he has been able to find eight other examples in the literature in which the disease was present for five generations. He states that tylosis is not always hereditary and refers to reports made by Hebra in 1856, in which no mention was made of an hereditary factor. Tylosis is known under many names. These include *keratodermia palmaris et plantaris hereditaria*, *keratoma palmarum et plantare*, congenital ichthyosis and acro-keratodermia. It is usually congenital, much less often it is acquired. Histologically tylosis is seen to consist of an hypertrophy of the *stratum corneum* of the epidermis. The pathogenesis has not yet been determined. Treatment as a rule is unsatisfactory.

Appendicitis and Lobar Pneumonia in Children.

F. D. ADAMS AND B. J. BERGER (*The Journal of the American Medical Association*, November 25, 1922) draw attention to the common error of mistaking lobar pneumonia for appendicitis. They have not seen appendicitis wrongly diagnosed as pneumonia. They have considered this question in regard to children between the ages of two and fifteen years and have studied the children between those ages admitted to the Boston City Hos-

pital during a period of eighteen months. Of one hundred and forty-five children with lobar pneumonia only sixty-six were sent to the hospital with a diagnosis of broncho-pneumonia or lobar pneumonia. Twenty-five were sent in with a diagnosis of appendicitis and were about to be subjected to operation when seen by physicians. The authors point out that this figure is higher than that for adults as recorded by Abrahams in 1920. A history of cough or pain in the chest points to a diagnosis of pneumonia. If a relation between chest pain and respiration or cough be established, attention is immediately drawn to the possibility of pleural inflammation. In children it is difficult to establish such a relationship. The absence of respiratory symptoms does not exclude pneumonia. Vomiting, abdominal pain and diarrhoea are symptoms common to both conditions and occur as frequently in one as in the other. Delirium was commonly seen in patients with pneumonia and was a cause of mistaken diagnosis in regard to meningitis. Delirium is not present in true surgical conditions. A patient with pneumonia looks more ill than a patient with appendicitis and presents a more characteristic clinical picture. Patients with pneumonia as a rule have a higher temperature and more persistent fever. Careful examination of the lungs may fail to reveal any signs suggestive of pneumonia. Should an area of supposed consolidation be found in the upper portion of the chest, great caution must be used in its interpretation, particularly in the absence of other signs or symptoms of pneumonia. A high leucocyte count is in favour of a diagnosis of pneumonia except when there is reason to suspect that appendiceal trouble has advanced to the stage of acute peritonitis or abscess.

ORTHOPÆDIC SURGERY.

The Operative Treatment of Hallux Valgus.

DAVID SILVER (*The Journal of Bone and Joint Surgery*, April, 1923) deals with *hallux valgus* and lays stress on the fact that the chosen operative procedure should be one which restores normal relations. He describes the essential pathological changes which have to be borne in mind. The great toe is deflected towards the outer border of the foot and there is subluxation of the phalanx on the metatarsal head. The fore part of the foot is spread, the space between the first and second metatarsal bones increased and the first metatarsal bone is rotated on its long axis, the inferior surface of the head turning inwards. The prominence on the inner side of the great toe is formed partly by the inner portion of the head which is uncovered by the subluxation, partly by the projection of the inner edge of the inferior portion of the head and to a lesser degree by actual hypertrophy of the bone. Joint changes and the changes in the balance of the mus-

culature are also described. Viewing the pathological changes from an operative standpoint it seems evident to the author that it is necessary to remove only the hypertrophied bone and the real obstacle to the correction of the distortion of the toe lies in the structural shortening of the tissues on the outer side of the joint, while the difficulties in retention are found chiefly in the loss of muscle balance and to a lesser extent in the structural lengthening of the inner side of the capsule. The author does not lay any claim to originality in the operative method. He employs an incision with the convexity downwards. The fibrous capsule is exposed and a Y-shaped incision is made throughout so as to form three flaps, a distal flap whose base is attached to the phalanx and dorsal and plantar flaps. These flaps are dissected up and after the great toe is adducted a flat chisel is placed against the anterior edge of the inner portion of the head and a thin layer of the cortex, together with the periosteum and any exostoses that may be present, is removed thus leaving a small surface of denuded bone. The next step is the formation of an external capsular flap. This flap has its base on the metatarsal bone and is constructed by making longitudinal incisions above and below the joint and by joining these incisions by an incision round the lateral side of the first phalanx. When this flap is made the toe may then be drawn into adduction and it is possible to displace the flexor and extensor tendons together with the sesamoid bones to the inner side of the joint. The great toe is then held in extreme over-correction and the new medial ligament is constructed by suturing the first formed distal flap into a more approximate position. The dorsal and plantar flaps are then sutured as far forward as possible and allowed to overlap the distal flap. Great emphasis is laid on following a consistent plan of after treatment until normal relations are restored. The skin sutures are removed in five to seven days. Walking on the outer borders of the feet is begun in a week and in three or four weeks the foot may be ready for a new shoe. The splint which is applied at the time of operation, is then removed and adhesive strapping is used to relieve the new ligament of part of the strain to which it is subjected. The proper use of the foot in both standing and walking becomes possible after this operation and the result can be made permanent by the performance of a few exercises and by taking a few steps in the proper manner once or twice a day. The author has performed forty-nine such operations on thirty-one patients. The series includes cases of all degrees and severity, but none in which joint disease had existed. Many of the patients have been followed from several months to two years and the author has no hesitation in saying that the results obtained by this method have been decidedly better, both as regards form and function, than those obtained by other methods which he had employed.

Transplantation of Tensor Fasciae Femoris.

The limp caused by a weak *gluteus medius* with swaying of the body towards the involved side is very noticeable in many patients who have suffered from polio-myelitis. To alleviate this limp, ARTHUR T. LEGG (*The Journal of the American Medical Association*, January, 1923) has devised a plan of transplanting the *tensor fasciae femoris* muscle into the outer side of the femur to increase the power in the *gluteus medius*. The *tensor fasciae femoris* is to some extent an abductor, but its greater power is in flexion. The *gluteus medius* is an abductor but it is not usually recognized that the *gluteus medius* is the muscle which keeps the body from falling to the opposite side when the weight is borne on one leg. Inability of the *gluteus medius* to perform this function causes a limp. Details of the method of performing the operation are given and the author has performed fifteen such operations with very satisfactory results in most instances. It will not be found to be of much benefit in patients in whom the limp is due to weakness of both the *gluteus medius* and the *gluteus maximus*. Before deciding to perform the operation, it is necessary for the surgeon to be certain that the disability is not due to paralysis of the abdominal muscles.

Lengthening of the Tendo Achillis.

H. GREENWOOD (*The British Journal of Surgery*, April, 1923) attacks the closed method of performing tenotomy on the *tendo Achillis*. He puts forward objections to the method in which hemisection of the tendon is performed at two points distant from each other 2.5 centimetres or more. He has worked out a method of estimating the length of gap to be covered in correcting various degrees of the equinus deformity. To make certain of the result an open operation should always be done. After operation the over-corrected foot is fixed in plaster of Paris.

Traction Fracture of the Lesser Trochanter.

J. FREDERICK LANGDON reports an instance of traction fracture of the lesser trochanter (*Surgery, Gynaecology and Obstetrics*, April, 1923). The condition is rare and there are only twenty-four cases reported up to February, 1921. The cause of the fracture in this patient was a sudden strain in endeavouring to prevent the trunk from falling backwards while the femur was fixed. There was complete loss of flexion of the thigh on the trunk, though the patient could bear his weight on the injured limb without any evidence of pain. Passive movements were possible in all directions and were not painful. X-ray examination revealed a separation of the lesser trochanter. The effective treatment is to place the limb in slight flexion with lateral rotation and adduction. Immobilization in this position should be carried out for two or three weeks, after which the patient may be allowed to walk on crutches.

British Medical Association News.

SCIENTIFIC.

A MEETING OF THE SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held in the Lister Hall, Hindmarsh Square, Adelaide, on May 31, 1923, DR. T. G. WILSON, the President, in the chair.

Listerian Oration.

The President introduced Dr. C. Bickerton Blackburn, O.B.E., who had been invited to deliver the Listerian Oration. He said that they could really claim Dr. Blackburn as an Adelaide man, as he had started his course there. He had left Adelaide during the hospital trouble. He thanked Dr. Blackburn for the honour he had done the South Australian Branch in coming so far to deliver the Oration.

DR. C. BICKERTON BLACKBURN then read his address on the clinical interpretation of blood pressure readings (see page 1).

DR. W. T. HAYWARD, C.M.G., moved a vote of thanks to Dr. Blackburn. He said that he felt sure that everyone present had learned a great deal from Dr. Blackburn's address. He wished to thank him very much, as he knew that a large volume of work had been required to prepare such an address.

DR. H. SWIFT seconded the motion. He had been struck by the very high readings which Dr. Blackburn had registered in several of his patients, extending at times to over 300 millimetres of mercury for the systolic pressure. He wished to ask Dr. Blackburn if the temporary partial paralysis of certain sets of muscles noted in some of his patients was actually due to a temporary engorgement of the surface vessels of the brain. He had much pleasure in seconding the motion.

The motion was carried with applause.

Dr. Blackburn replied briefly. In reply to Dr. Swift, he stated that the readings had been verified with two different types of sphygmomanometers and the results had been checked. He thanked the members for their cordial reception and for the honour they had conferred on him in inviting him to give the Listerian Oration.

A MEETING OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held in the Lecture Theatre of the Department of Anatomy of the University of Sydney, on May 25, 1923.

PROFESSOR J. I. HUNTER delivered an address on "The Evolution of the Human Brain in the Light of Recent Discoveries." At the request of Professor Hunter, the publication of this address has been postponed for a period of about three months. The article and the discussion that followed its delivery, will therefore appear in a later issue.

A MEETING OF THE QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Brisbane General Hospital, on May 3, 1923, the Vice-President, DR. D. GIFFORD CROLL, C.B.E., in the chair.

Ichthyosis.

DR. J. G. AVERY showed a boy thirteen years of age who was suffering from congenital Ichthyosis. The patient's three brothers had all been healthy.

DR. A. JEFFERIS TURNER said that this boy was under his care at the Diamantina Hospital and asked for suggestions in regard to treatment.

DR. D. GIFFORD CROLL, C.B.E., said that he had seen several patients with this condition, but that unlike the patient demonstrated the palms and soles of the feet had been affected. He had obtained moderately successful results from exposure to X-rays and the administration of thyroid extract.

DR. AVERY in reply said that there was no cure for the condition. The administration of thyroid extract might be tried and lanoline was useful as an external application. He doubted whether Dr. Croll's cases of palmar ichthyosis were in the same class as the one to which he had referred.

Charcot Joints.

DR. E. S. MEYERS showed a female, aged forty-seven years, who was suffering with Charcot's disease of both hip joints and the right shoulder joint. The shoulder joint had been punctured and become septic. There was no history of syphilis. Coordination was faulty and the knee jerks were absent. The pupils were unequal and the Argyll Robertson phenomenon was present. Dr. Meyers showed skiagrams of the joints.

Fracture of the Scaphoid and Forward Dislocation of the Semilunar Bone.

DR. A. V. MEEHAN showed a boy who had sustained a fracture of the scaphoid and forward dislocation of the semilunar bone in the left hand as a result of a fall from a motor cycle. The hand had been placed on a straight splint for nineteen days. When seen by Dr. Meehan there had been loss of dorsiflexion. The lateral movements of the hand had been restricted and pronation and supination had been possible to only a slight extent. He had made an incision on the inner side of the tendon of the long extensor muscle and had removed the fragments of the scaphoid and semilunar bone. As a result of this the os magnum had come forward into position. The hand had then been placed in a "cock-up" splint for one week. Active movements and massage had then been started and the hand had been kept in a position of ulnar deviation by means of strapping. At the time of demonstration the movements were good except for slight limitation of palmar flexion. The grip was moderately strong.

X-Ray Burn.

DR. J. G. AVERY showed a man seventy years of age, who had been examined with the fluoroscopic screen seven years previously on account of some gastric trouble. As far as Dr. Avery could remember the examination had been carried out with the screen mostly behind the patient. A large burn had developed on his back. Examination of the burn showed some thickening of the upper portion of the scar; some scaling was present. In one or two areas bleeding occurred. Apart from this nothing abnormal was found in his general condition. Dr. Avery raised the question as to whether malignant disease was developing in the scar and what treatment should be used to cope with the condition.

DR. V. McDOWALL said that these burns were a common accident when the rays were unfiltered. He considered that there was a risk of malignant disease developing in the upper part of the scar and recommended its removal. Skin grafting could subsequently be carried out. He pointed out that there was a condition of telangiectasis all round the lesion and said that mercury vapour light was supposed to remove this. He had, however, obtained no good results from this form of treatment.

Chronic Ulcer of the Legs.

DR. A. G. ANDERSON showed a man thirty-four years of age who had scratched his leg three years previously and had developed a small ulcer. The ulcer had gone on growing until at the time of demonstration it extended from the ankle to just below the knee. The patient's serum had failed repeatedly to react to the Wassermann test. No response had been obtained to any of the tests or pathological examinations made for malignant disease, tuberculosis, actinomycosis and protozoan parasites. Cultures made from the pus and débris revealed the presence of streptococci and of a motile bacillus which became decolorized by the Gram method of staining. The patient's health was moderately good. Energetic anti-syphilitic treatment had failed to effect any improvement.

DR. A. JEFFERIS TURNER thought that the condition might be due to an acid fast bacillus other than the tubercle bacillus.

DR. V. McDOWALL thought that the secondary infection which was present, might have masked a mycotic condition. He did not think that the ulcer had the appearance

of a syphilitic lesion. He recommended the administration of large doses of tartar emetic by the intravenous route and the oral administration of iodides. The injection of 0.3 cubic centimetre (5 minims) of phosphorated oil round the ulcer produced improvement when antimony failed to do so.

DR. J. M. MCLEAN, D.S.O., was of the opinion that, as the knee joint was flexed and ankylosed, amputation would be better than any further medical treatment.

Bancroft's Chloroform Mask.

DR. A. H. MARKS, C.B.E., D.S.O., showed the chloroform mask which had been designed by the late Dr. Peter Bancroft and which had been referred to by DR. E. S. JACKSON in his paper on the records of the Brisbane Hospital (see THE MEDICAL JOURNAL OF AUSTRALIA, March 17, 1923, page 286).

Intact Ovum.

DR. MARKS also showed a specimen of a foetus which had been passed with the placenta and intact membranes. The patient had been pregnant for the third time and the fetus had reached a stage of seven months' development. The patient's urine had contained much albumin. DR. MARKS thought that it was rare to see an ovum passed intact at this stage of pregnancy.

DR. J. A. CAMERON agreed with DR. MARKS and said that on the previous day he had encountered a similar condition in which the patient had given a history of hemorrhage for several months.

Subphrenic Abscesses.

DR. E. S. MEYERS showed a post mortem specimen of subphrenic abscess. The patient had undergone several operations for gall stones. The abscess had apparently been due to leakage from a drainage tube after cholecystostomy. He had experienced considerable difficulty in opening the peritoneal cavity and had removed the stones from the common bile duct. The patient had died shortly afterwards.

Gall Stones.

DR. MEYERS also showed a gall bladder which had been removed on account of the presence of gall stones in the cystic duct. The walls of the gall bladder were much thickened and he had removed it on this account.

Functional Scoliosis.

DR. H. J. STEWART showed a boy aged twelve years who had recovered from a severe attack of tetanus. The boy had returned to hospital with a definite scoliosis. There had been no evidence of this on his recovery from tetanus and DR. Stewart considered the condition to be purely of a functional nature.

Sarcoma of the Lumbar Vertebrae.

DR. A. G. ANDERSON showed a man aged sixty-six years. Two years previously this patient had suffered from symptoms of gall-bladder disease. As examination had failed to reveal the presence of any lesion, no operation had been undertaken. Symptoms of stone in the bladder had then developed and in November, 1922, he had begun to limp and complained of pain in the back. On examination a firm tumour had been discovered over the second lumbar vertebra. "Girdle" pains had been present. After a few days complete paraplegia had developed. The patient's serum had not yielded a reaction to the Wassermann test. Radiological examination had shown a disappearance of the spines of the first and second lumbar vertebrae. At operation the laminae of the first and second lumbar vertebrae had been found to be replaced by a soft encapsulated haemorrhagic mass. The mass, together with the transverse processes, had been removed. The theca spinalis had been intact and uninvolved in the growth. The paraplegia had cleared up in twenty-four hours and the patient at the time of demonstration could move his legs freely, though some numbness was still present. The growth according to the pathological report was a large, round celled sarcoma.

Skiagrams.

DR. V. McDOWALL showed several interesting skiagrams. These included secondary deposits in the spine and femur

from carcinoma of the breast, a vesical calculus, together with an exostosis of the pubic bone.

Gummata of the Iris.

DR. J. LOCKHART GIBSON showed a female patient, aged thirty years, a married woman. The clinical history made it clear that a primary infection of syphilis had occurred soon after her marriage ten years previously. The patient had complained of trouble in the right eye on April 18, 1923. When seen by her doctor twelve days later tritis with strong posterior synechiae had been present. When DR. Gibson saw her for the first time on the day of demonstration the pupil had been under the influence of atropine and its outline had been very irregular. This, in DR. Gibson's opinion, was due to the presence of definite confluent gummata which formed a raised line on the anterior surface of the iris above the edge of the wedge shaped pupil and a somewhat similar line below the edge of the pupil. Gummata were absent only in that portion of the pupil which had not dilated. The posterior synechiae had been secondary to the gummata. A peculiarity of this case was a very generalized macular and papular eruption scattered over the whole body and specially distinct on the face and neck. The rash was fading and had been diagnosed two months previously. DR. Gibson said that it was a tertiary eruption as proved by the presence of gummata on the iris. It simulated an irregular secondary rash. During the previous two months the patient had received several injections of "Arseno-benzol" and had received 0.36 grammes (6 grains). The patient would be put to bed in a private hospital and energetic inunction would be commenced without delay. Very considerable all round improvement might be expected in a week's time with inunction alone. But it might be three weeks before all the manifestations present disappeared.

Chronic Otitis Media with Intra-Cranial Complications.

DR. E. CULPIN showed a man twenty-nine years of age who gave a history of having suffered from intermittent aural discharge for a period of thirteen years. Five days before admission to hospital he had suffered from pain in the ear, together with headache, vomiting and a shivering attack. Foul pus had been present in the left external meatus, together with two perforations of the drum and slight tenderness over the mastoid process. There had been no stiffness of the neck nor had Kernig's sign been present. The pupils had been equal and coarse nystagmus not directed to one side had been present. No tests had been carried out in regard to the labyrinth. The temperature had been 39.4° C. (103° F.) and had shown practically no signs of remission. Blood examination had shown the leucocytes to number 11,000 per cubic millimetre. Sinus trouble had been excluded from the diagnosis by the low blood count, by the maintenance of a high temperature and by the presence of vomiting and nystagmus. At operation it had been found that the mastoid was of ivory hardness and contained very little pus. Foul smelling pus and a cholesteatoma had been found in the antrum. The dura mater in the middle cranial fossa had been exposed above the petrous bone and had been found to be healthy. A small quantity of pus had been evacuated after removal of roughened bone in the roof of the mastoid antrum. Recovery had been uneventful.

NOMINATIONS AND ELECTIONS.

THE undermentioned have been nominated for election as members of the New South Wales Branch of the British Medical Association:

ALLISON, JOHN ROBSON, M.B., Mast. Surg., 1921 (Univ. Sydney), Coraki, Richmond River.

CHESTERMAN, JOHN NICHOLSON, M.B., Ch.M., 1923 (Univ. Sydney), Lurnea, Vaucluse Road, Vaucluse.

DAVEY, RICHARD DUNCAN, M.B., Ch.M., 1923 (Univ. Sydney), Brighton Avenue, Croydon Park.

ELPHICK, VIVIAN ROY, M.B., 1923 (Univ. Sydney), Lake Cargelligo.

- GREGG, NORMAN MCALISTER, M.B., Ch.M., 1915 (Univ. Sydney), 215, Macquarie Street, Sydney.
 HEATH, LEO BARCLAY, M.B., Ch.M., 1922 (Univ. Sydney), c/o Dr. S. S. Shirlow, Balmain.
 LEY, THOMAS URBAN, M.B., Bac. Surg., 1922 (Univ. Melbourne), Wagga Wagga.
 THOMSON, JOHN GEMMILL, L.R.C.P. (Edin.), L.R.C.S. (Edin.), L.F.P.S. (Glasg.), 1893, Craigmore, Marlow Street, Campsie.
 WHITFIELD, RALPH ALISTER, M.B., Ch.M., 1922 (Univ. Sydney), Royal Alexandra Hospital for Children, Camperdown.
 WILLARD, FRANK TEENERY, M.B., Ch.M., 1921 (Univ. Sydney), Maclean, Clarence River.

THE undermentioned has been elected a member of the Victorian Branch of the British Medical Association:

- IRELAND, MARIAN ISABEL LINDSAY, M.B., B.S., 1923 (Univ. Melbourne), 397A Dandenong Road, Armadale.

NOTICES.

THE COUNCIL OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION has arranged the following provisional programme of the Branch meetings. The Scientific Committee reserves to itself the right to modify the arrangement, but it is hoped that no changes will be necessary.

August 1, 1923.

CLINICAL MEETING at the Alfred Hospital.

September 5, 1923.

At the Walter and Eliza Hall Institute of Research in Pathology and Medicine, Melbourne Hospital, at 8.15 p.m.

DR. IVAN MAXWELL: "Modern Views of Asthma, Hay Fever and Allied Disorders, such as Angioneurotic Oedema, Urticaria and Serum Sickness."

October 3, 1923.

CLINICAL MEETING at St. Vincent's Hospital.

Hospitals.

ROYAL PRINCE ALFRED HOSPITAL.

THE directors of the Royal Prince Alfred Hospital have issued their thirty-eighth annual report for the year ended June 30, 1922. The report is in book form of demy octavo size and two hundred and eight pages. It is well illustrated by views of the various hospital buildings and the grounds and may be regarded as a good record of work done by those connected with this progressive institution.

Statistics.

All the figures in regard to the number of patients treated, the number of operations *et cetera* show an increase on those of the previous year. The number of patients remaining in hospital on June 30, 1921, was 508. During the year ended June 30, 1922, the number of patients admitted was 7,590. The number of patients discharged was 7,200 and 392 patients died. The number of patients remaining in hospital on June 30, 1922, was 506. According to the formula of the Registrar-General, the mortality rate was a trifle over 5%. Ninety patients died within twenty-four hours' admission to hospital. Allowing for these the mortality rate was just over 4%. The rate as given in the report is 3.72%. The number of patients discharged as cured is put down at 4,539. This figure must be accepted with reserve. Patients admitted as a result of accident

or as a matter of urgency and those paying nothing towards their support while in hospital numbered 3,437. The patients who contributed something towards their upkeep numbered 3,233, while 870 patients were treated for the Department of Repatriation. The average duration of a patient's stay in hospital was 24.54 days. A lengthy table is drawn up to show the number of operations done in each year in the hospital. The percentage of the number of operations to the number of admissions for the year under review was the highest in the history of the institution, namely 79.35%. This is referred to as illustrating the growth of operative work and is treated as a matter for congratulation. Hospitals are supposed to exist for the treatment of all persons of small means who cannot command the necessary medical and nursing attention during illness elsewhere. The science of therapeutics is not so bankrupt that 80% of illnesses cannot be treated save by mutilating procedure. Or does this alarming record mean that while medical treatment is within the financial reach of the majority, only a small fraction of the population can afford to pay surgeons for their work?

The work in the out-patients' and casualty departments was larger than in any previous year. The number of patients treated was 37,967 and the number of individual attendances was 108,723.

On the financial side many interesting figures are given. The total revenue of the hospital for the year was £105,360 and the total expenditure £110,214. The deficiency for the year was thus £4,853. The bank overdraft on June 30, 1922, was £32,219. The directors point out that the deficiency would have been much greater had it not been for the help rendered by the Hospital Auxiliary. This body spent upwards of £3,000 on bedding, linen, *et cetera* and made up garments to the value of more than £1,000. The amounts paid by patients towards their upkeep in hospital totalled upwards of £11,210, an increase of £1,526 on the receipts of the previous year from this source. Each paying patient contributed on an average nineteen shillings and fivepence. The Repatriation Department contributed a sum of £19,059 in respect of 870 patients admitted under special arrangement.

Two Important Innovations.

A new departure was made during the year in the inauguration of a new dental department under the superintendence of the Dean of the Faculty of Dentistry, Professor Fairfax Reading.

Another definite step in the right direction was made during the year. The medical board, which consists of members of the staff, appointed two special committees to investigate the treatment of shock and to consider the surgical equipment of the hospital. No statement is made as to whether or not this action was undertaken at the request of the Board of Directors. The point is really immaterial. The interest lies in the fact that matters of importance have been considered by the staff as such and that effect has been given to their recommendations. Consideration of matters relative to the treatment of patients is a function of the staff as a whole or of sub-committees appointed by it. Such meetings of the staff are one of the features of the scheme of hospital standardization that has been discussed recently in this journal. In regard to the treatment of shock, the committee recommended the installation of a *réchauffement* stretcher, heat preserving cages and Kington apparatus. They also recommended that gas and oxygen anaesthesia be not employed in the work of the hospital. This latter decision is perhaps one in regard to which some difference of opinion exists.

Statistics of Diseases.

As usual a considerable amount of space is devoted to a classification of diseases and of the operations performed in connexion with them. To the diseases are attached the numbers of patients supposed to be cured, the number relieved and unrelieved and the number of deaths. In regard to the operations, the results are described under the headings "relieved" and "died." The information has but a limited value for reference purposes. There is a total absence of all indication of what was actually found at the operation, what special measures were adopted to meet special conditions and how often the pre-operative

diagnosis was confirmed. The statement that numbers of patients are "cured" of various conditions needs to be accepted with reserve. This is most noticeable in regard to malignant disease. The standard of cure should be something more than the healing of a wound. Another small point that does not tend to accurate thinking is the use of the letters "T.B." when the adjective tuberculous is intended. There is no such thing as a "T.B." gland and no such disease as "T.B." peritonitis.

Conclusion.

The main impression gathered from reading this interesting report is that of the enormous amount of clinical material passing through the hands of the staff. It is obvious that the time of both honorary and resident staff must be very fully occupied in the regular routine work of the institution. The analysis and investigation of much of the work done at this and similar institutions would be of great benefit to medical knowledge. This could probably be done best by the establishment of clinical research fellowships. But here as usual the money question looms largely in the forefront.

Correspondence.

HYPNOTIC SUGGESTION.

SIR: The recommendations of Dr. Arthur in regard to the showing of the methods of hypnotism to medical students, if adopted, would be a menace to the welfare of the general public. We only hear about the wins of the man who attends the races. The gambler at the card table or the stock exchange never refers to his losses. The witness at the police court gives his own idea of a verbal agreement or of an occurrence and it is soon recognized that he only remembers those things which please him and are to his advantage and in the course of time by repression he has entirely forgotten anything which is to his disadvantage. We might add to this list of methods of downing the other fellow with the greatest of ease and give as a final illustration that the hypnotist enjoys influencing and muddling the other fellow and to support his actions he will quote the views of other hypnotists or friends under his hypnotic influence.

It is a question whether a large number of cases of paranoia are not due to hypnotic suggestion. It is said that "nerves" in civil life is the effect of our modern civilization, but it appears to me that hypnotism is the contributing factor in many cases. Some medical men have numerous neurotics amongst their patients and these may be regarded as undiagnosed cases. I have never had any neurotics under my care in civil life. If the patient is given sound advice and common sense combined with suitable treatment, it will be found that there are few or no neurotics, but if a patient's ideas are fuddled with hypnotism, then numerous neurotics must be expected. How many hypnotists have intelligence or judgement? They may possess good memorizing powers or journalistic ability and be able to impress the public by the secret use of hypnotism, but have the intelligence and judgement of a boy of fourteen years of age. Men of position may be fastened on to by the hypnotist, who may be a man of a fanatical nature, who lacks good judgement and may be guided by self-interest. Dr. Arthur evidently would derive great satisfaction in providing impetuous youths, who lack judgement based on mature experience, with the means of exercising their skill or otherwise as hypnotists. We would see Dr. Rasputin Sawbones duly registered as a medical practitioner fortified with Huxley, Spencer, Havelock Ellis and Freud. Dr. Shylock Sawbones would be ready to fill his empty coffers by means of any "get rich quick" methods. Dr. Adonis Sawbones would adopt any means for his social and public advancement. Dr. Conscientious Sawbones would be out to do his very best for the patient and by his honourable conduct would help to maintain the good reputation of the medical profession to the advantage of Rasputin, Shylock and Adonis. Hicksonites, Christian scientists and hypnotic healers are much

less a menace to the public than the secret hypnotist of the medical profession who lies in wait for his prey to fuddle and hypnotize him instead of giving him sound advice. If Matthew Hopkins, of England, and Cotton Mather, of America, were here today, they would recognize in the secret hypnotist the long lost brother of the wizard of a couple of hundred years ago. Dr. Arthur will probably sooner or later require a medical attendant and it is as well for him to make sure that he does not place himself in the hands of a secret hypnotist and Judas Ischariot. He will be wise to select a conscientious gentleman who will give him sound advice based on knowledge, judgement, reason and common sense.

Yours, etc.,

R. A. PARKER.

East Kew, Victoria,
June 6, 1923.

AMOEBOIC DYSENTERY IN AUSTRALIA.

SIR: The scholarly description of the dysenteric infections in Australia by Dr. C. B. Shearman, of Perth (THE MEDICAL JOURNAL OF AUSTRALIA, June 2, 1923) is of particular interest to all who are dealing in any way with the so-called tropical diseases, and, particularly interesting is his demonstration that in Western Australia there exists an endemic centre of amoebic dysentery. The further observers go into this field, the more definitely can one conclude that amoebic dysentery is quite a widespread infection in Australia, tending to occur in a considerable proportion of old mining centres and in an appreciable percentage of normal individuals.

Dr. P. A. Maplestone, when Acting Director of the Australian Institute of Tropical Medicine, published the result of investigation of individuals living within seventy miles of Townsville and found that in five hundred cases 4.6% actually were carriers of *Entamoeba histolytica*. T. Harvey Johnston in 1909 published records also of six or seven cases of amoebic dysentery or liver abscess occurring in Australia prior to that date.

Cases of amoebic dysentery occurring in individuals who have never been outside Australia must and do occasionally happen in Queensland, one such having come to the notice of the writer within the last month with definite *Entamoeba histolytica* in the stools, while the recent records of a northern hospital seen some months ago, include four cases of liver abscess with definite anchovy-like pus and related symptoms, from old mining fields on the Townsville-Camooewal line.

The records of Northern Australia, too, contain many references to outbreaks of dysentery with a heavy mortality, though unfortunately data are scanty as to details. There is no doubt, however, that in course of time the plotting out of the occasion recurrence of the disease will indicate a very considerable area of distribution.

Yours, etc.,

R. W. CILENTO.

Australian Institute of Tropical Medicine,
Townsville, North Queensland,
June 12, 1923.

GROUP TESTING OF BLOOD FOR TRANSFUSION.

SIR: On one or two occasions I have had the opportunity of doing blood transfusion by the citrate method, but I have been deterred by the difficulty in determining the suitability of the blood groups. So far as I know, the serums of Groups II. and III. for testing purposes are not available here commercially. I should be grateful if any readers of the journal could inform me whether these serums are obtainable. Failing this, possibly some reader with experience could say whether a bedside test of the patient's serum against a suspension of the red blood cells of a possible donor would be satisfactory.

Yours, etc.,

J. R. L. WILLIS.

Learmouth, Victoria,
June 18, 1923.

INFECTION IN CARDIAC DISEASE.

SIR: I read with pleasure Dr. Horsfall's paper dealing with "Infection in Cardiac Disease." Being extremely interested in the matter and having published a paper on the same subject in our journal, November, 1919, it goes without saying that I thoroughly endorse his views.

Not being present at the discussion, might I be permitted to make a few remarks?

There are three types of myocardial involvement: (i.) Myocardial spoiling as the result of a toxin acting at a distance, as in diphtheria; (ii.) direct invasion of the myocardium by organisms; (iii.) myocardial failure due to impaired coronary supply. The first two are directly the result of infections, the last indirectly so, as the tendency is swinging round to the belief that arterial changes are in the majority of cases the result of bacterial toxins. The first is usually transient, the two latter frequently of many years' standing. Whichever is present can be of all degrees of severity and consequently the myocardium is liable to dilate under varying degrees of exertion. That exertion may be sitting up in bed or running a mile race. Because a toxic heart dilates under strain, can we attribute the result to the strain? It is a factor in the dilatation, but not the primary one.

There is one point in the chronicity of myocardial infections I would like to draw attention to. In the young the usual source of infection is from the tonsils and in the old from pyorrhœa. It is so common to find mitral murmurs in children who have never had so-called rheumatism or tonsilitis, yet their infection has come from their tonsils. In fact, the majority never own up to getting sore throats. During an acute attack of tonsilitis, it is very probable that at that time there will be a much larger invasion than usual, but we have no right to suppose that during the quiescent period invasion is not also taking place. Clinical evidence distinctly points to this. It is quite immaterial from the infective point of view whether the valves, myocardium or both are invaded, in fact the probability is that they are both more or less so. Because we do not hear a murmur, does not signify that there is no invasion of valves. This may be slight and completely resolve. Extra-systoles are in all probability the result of emboli of cocci lodging in the myocardium and setting up points of irritation. This was well illustrated in a case I had the other day. A patient with a profusion of extra-systoles and much cardiac distress, on the clearing of bad pyorrhœa rapidly lost the extra-systoles and all cardiac discomfort.

It is a very difficult thing to exclude the presence of some toxæmia, as by far the large majority of people have some bacterial infection of a quiescent type, yet capable of causing insidious damage. It were well if the word "rheumatic" were excluded from our vocabulary, as it seems to point a difference between it and other forms of arthritis, which is not the case. There are various forms of organisms capable of producing this condition with varying degrees of intensity. This variation may depend on the virulence of the organism and the resisting powers of the individual.

Since treating patients on these lines, one has often been struck with the rapidity the myocardium responds to the removal of the responsible focus. It is not uncommon to see an acutely inflamed joint resolve within a day or so after tonsils or teeth have been removed, in fact at times it is so striking as to give relief within a few hours.

That over-exertion is one of the factors in precipitating heart failure in impaired myocardiums is quite patent, but it must be looked upon as an injury, just as a boy playing football with an improperly repaired sprained ankle. At the present time, we have not yet penetrated the depths to which the results of infections are responsible and that must embrace every tissue of the body. When we accept this and realize that disease is primarily hypo- or hyper-function of some tissue, much will become clear.

I feel thankful to Dr. Horsfall in bringing up the matter, as there is still too much a tendency to treat the heart and

ignore the cause. What does the patient benefit by all the paraphernalia at the command of the physician, when the destroying agent is left undisturbed?

Yours, etc.,

SYDNEY PEERN.

12, Collins Street, Melbourne,
June 26, 1923.

LEUCOCYTES IN HEALTH AND DISEASE.

SIR: For the sake of accuracy, it seems to me necessary to indicate some reasons why Dr. Fairley's figures in regard to the leucocytes in health appearing in his article in your issue of the 16th instant should not be accepted until much more work has been done on the subject.

In the first place the generally accepted average of the percentage of "polymorphs" and "mononuclears" has been arrived at as the result of the work of a number of experienced haematologists who in most instances have done some hundreds of differential counts for the purpose.

There is substantial agreement in their figures.

Thirty-six counts are surely very few in comparison and amongst indoor workers and students it would not be surprising if several were not strictly normal in health.

It must have surprised most pathologists to hear the normal range given as from 30% to 80% of "polymorphs," for it is undoubtedly rare to find less than 45% of polymorphs in the blood of a normal individual. If these figures were true, the value of differential counts in regard to the proportion of "polymorphs" to "mononuclears" would be greatly lessened, but actually it is still true that used with discrimination such counts are of definite value in diagnosis and prognosis.

The counting of leucocytes from films is apt to be fallacious on account of some of the "polymorphs" collecting into little clumps which are carried to the extreme end of the film or adhere to the slide which has been used as a spreader. This is especially the case with thick smears made by the method of drawing the blood behind the spreader.

The error is always in the direction of lowering the percentage of "polymorphs."

A better method of doing a differential count is to dilute the blood in the pipette for leucocytic counting, using a fluid which will dissolve the red cells and also stain the leucocytes sufficiently for their recognition. Several such exist and there is no need to go into details here.

In regard to the possibility of occasionally confusing certain forms, this can be overcome by also examining a film, but in any case the error will be negligible if the worker is familiar with the method.

It appears reasonable to suggest that we delay altering our conception of the normal standards until at least two hundred counts have been made by this method (or both) on presumably normal people drawn from various avocations and whose haemoglobin value is not below 90%.

Yours, etc.,

DOUGLAS L. BARLOW.

198, North Terrace, Adelaide,
June 27, 1923.

Naval and Military.

APPOINTMENTS.

THE undermentioned appointments, changes, *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Nos. 37, 38 and 42 of May 31, June 7 and June 21, 1923:

Australian Military Forces.

FIRST MILITARY DISTRICT.

Australian Army Medical Corps.

To be Captains (provisionally)—EDWARD JOSEPH SAVAGE and ARTHUR DUNCAN MCKENZIE, 20th April, 1923.

The provisional appointments of CAPTAINS E. J. SAVAGE and A. D. MCKENZIE are terminated under the provisions of section 15 of the Defence Act, 19th April, 1923; the provisional rank of CAPTAIN D. E. A. BUCHANAN is confirmed.

Australian Army Medical Corps Reserve.

To be Honorary Captains—HARRY ALEXANDER LEGGE-WILLIS and NORMAN ROY DALE, 1st May, 1923, and 17th May, 1923, respectively.

Reserve of Officers.

To be Captain—EDWARD OSWALD MARKS, 15th May, 1923.

SECOND MILITARY DISTRICT.

Australian Army Medical Corps.

HONORARY CAPTAIN F. W. A. PONSFORD is appointed from the Australian Army Medical Corps Reserve and to be Captain, 1st May, 1923.

The provisional rank of LIEUTENANT-COLONEL A. J. MCKENZIE is confirmed.

Australian Army Medical Corps Reserve.

HONORARY MAJOR R. SCOT-SKIRVING is placed on the Retired List with permission to retain his rank and wear the prescribed uniform, 1st May, 1923. HONORARY MAJORS E. J. JENKINS and H. M. DOYLE are retired under the provisions of Australian Military Regulation 152(1), 1st May, 1923.

THIRD MILITARY DISTRICT.

Australian Army Medical Corps.

MAJOR W. H. RENNICK is appointed from the Reserve of Officers and to be supernumerary to the establishment of Majors with pay and allowances of Captain, 1st March, 1923; MAJOR J. H. ANDERSON, C.M.G., C.B.E., relinquishes the command of the 5th Cavalry Field Ambulance, 10th April, 1923, and is transferred to the Reserve of Officers and to be Lieutenant-Colonel, 11th April, 1923.

The provisional ranks of the undermentioned officers are confirmed:—LIEUTENANT-COLONELS J. J. McMAHON, N. L. SPIERS and W. W. W. CHAPLIN; MAJORS R. A. R. WALLACE and F. E. KEANE; CAPTAINS C. W. ADEY and F. W. JACKSON; and LIEUTENANTS K. D. FAIRLEY, R. SOUTHBY, and J. H. BODY. MAJOR R. A. R. WALLACE is transferred to the Unattached List, 1st March, 1923.

Australian Army Medical Corps Reserve.

HONORARY CAPTAIN J. BOX is retired under the provisions of Australian Military Regulation 152 (1), 24th May, 1923.

Reserve of Officers.

CAPTAIN N. McCOLL is transferred to the Reserve of Officers, 6th Military District, 22nd April, 1923.

FOURTH MILITARY DISTRICT.

Australian Army Medical Corps.

To be Captains (provisionally)—FRANK WESLEY NOBLE and PHILIP SANTO MESSENT, 20th April, 1923.

The provisional appointments of CAPTAIN F. W. NOBLE and P. S. MESSENT are terminated under the provisions of section 15 of the Defence Act, 19th April, 1923.

FIFTH MILITARY DISTRICT.

Australian Army Medical Corps Reserve.

HONORARY MAJOR R. E. NEWTON and HONORARY CAPTAINS A. H. M. MACMORRAN and D. BROWNE are retired under the provisions of Australian Military Regulation 159, 1st May, 1923.

SIXTH MILITARY DISTRICT.

Reserve of Officers.

CAPTAIN N. McCOLL is transferred from the Reserve of Officers, 3rd Military District, 22nd April, 1923. The undermentioned officer is placed on the Retired List, with permission to retain his rank and wear the prescribed uniform, 21st May, 1923:—CAPTAIN A. O. V. TYMMS.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

A MEETING of the Senate of the University was held on June 11, 1923. The following degrees were conferred *in absentia*:

Master of Surgery: U. L. BROWN, N. M. CUTHERBERT, A. W. D'OMBRAIN, C. J. DOWNS, C. W. S. DUN, P. S. HUNT, V. J. KINSELLA.

The following resolution of sympathy and appreciation was adopted for transmission to Lady Maitland:

That the Senate record its sense of the loss that the University as well as the community has sustained by the death of its distinguished graduate and teacher, Sir Herbert L. Maitland, who was no less eminent for his professional skill than for his benevolent use of it in all cases of need.

A letter was received from Mr. Aubrey Halloran, solicitor, notifying the bequest of the late Ernest Simmonds to the University of the sum of £4,500 for the purpose of founding scholarships. It was decided to send a letter of thanks and appreciation to the trustee.

A MEETING of the Senate of the University of Sydney was held on July 2, 1923. The Chancellor, Sir William Cullen, on behalf of the Senate, extended a hearty welcome to Mr. Barff, on his return to take up the duties of Warden and Registrar.

The Senate on the recommendation of the Board of Directors of the Sydney Hospital appointed Dr. C. E. Corlette as Lecturer in Clinical Surgery in the place of the late Sir Herbert Maitland.

The following Examiners were appointed for the Third Degree Examination in the Faculty of Medicine, in August, 1923: Dr. H. R. G. Poate and Dr. J. C. Storey in anatomy; Dr. W. N. Horsfall in physiology; Dr. J. Macpherson in pharmacology.

On the recommendation of the Faculty of Medicine, the following Examiners were appointed for the conduct of the M.D. Examination: Professor W. A. Osborne, University of Melbourne, Professor A. E. Mills and Professor H. G. Chapman.

The Senate also resolved, in view of the Regulations of the General Council of Medical Registration:

(1) That the medical course be lengthened by one term so that the whole course shall be of six years' duration after 1923.

(2) That before admission to the First Degree Examination candidates shall produce evidence—

(i.) That they have passed examinations in physics and in chemistry for the Intermediate Certificate; or

(ii.) That they have passed examinations in physics and in chemistry for the Leaving Certificate; or

(iii.) That they have passed examinations in physics and in chemistry at the Matriculation Examinations; or

(iv.) That they have passed an examination in physics and chemistry to be instituted at the examination for Leaving Certificate; or

(v.) That they have passed an examination in physics and chemistry held at the time of the examination for matriculation equivalent to the standard required for a candidate at matriculation; or

(vi.) That they have passed examinations in physics and in chemistry at the end of Trinity Term of the First Year, the standard to be that of the pre-registration examinations in Great Britain.

(3) That there shall be an examination in physics and in chemistry at the end of the second term this year.

Proceedings of the Australian Medical Boards.

QUEENSLAND.

THE undermentioned have been registered under the provisions of the *Medical Act of 1867* as duly qualified medical practitioners:

DENHAM, HAROLD KNIGHT, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1922, Brisbane.

MARSHALL, GEOFFREY EDWIN LAMPORT, M.B., Ch.M. (Univ. Sydney), Toowoomba.

OVERSTEAD, JOHN EDWARD, L.R.C.P. and S. (Edin.), L.F.P.S. (Glasg.), 1922, Warwick.

For Additional Registration.

QUINN, REGINALD GEORGE, Ch.M., 1923 (Univ Sydney).

TASMANIA.

THE undermentioned have been registered, under the provisions of *The Medical Act, 1918*, as duly qualified medical practitioners:

FAY, FRANK WILLIAM, M.B., B.S., 1915 (Univ. Melbourne), Hobart.

IRELAND, MARIAN ISABEL LINDSAY, M.B., B.S., 1923 (Univ. Melbourne), Launceston.

Medical Appointments.

THE undermentioned have been authorized by the Board of Health of New South Wales as Inspectors under the *Cattle Slaughtering and Diseased Animals and Meat Act, 1902*: DR. E. W. B. Woods, M.C. (B.M.A.), at Hay; DR. A. J. MOLLISON (B.M.A.), at Molong.

DR. W. A. COLLOPY (B.M.A.) has been appointed Certifying Medical Practitioner at Trafalgar, Victoria, under the *Workers' Compensation Acts*.

DR. W. D. K. MACGILLIVRAY (B.M.A.), of Broken Hill, has been appointed an Honorary Ranger, in pursuance of the provisions of the *Birds and Animals Protection Act, 1918*, of New South Wales.

DR. JOHN BOSTOCK (B.M.A.) has been appointed, on probation, Senior Medical Officer, Department of Mental Hospitals, New South Wales.

SIR NEVILLE HOWSE, V.C., has been appointed a Deputy Chairman of Committees of the House of Representatives.

DR. DOROTHY S. ADAMS has been appointed a Resident Medical Officer at the Adelaide Hospital.

DR. A. P. DAVIS and DR. A. WALTERS (B.M.A.) have been appointed Junior Resident Medical Officers at the Perth Hospital.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney	Australian Natives' Association Ashfield and District Friendly Societies Dispensary Balmain United Friendly Societies Dispensary Friendly Society Lodges at Casino Leichhardt and Petersham Dispensary Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney Marrickville United Friendly Societies Dispensary North Sydney United Friendly Societies People's Prudential Benefit Society Phoenix Mutual Provident Society
VICTORIA: Honorary Secretary, Medical Society Hall, East Melbourne	All Institutes or Medical Dispensaries Australian Prudential Association Proprietary, Limited Mutual National Provident Club National Provident Association
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane	Brisbane United Friendly Society Institute Stannary Hills Hospital
SOUTH AUSTRALIA: Honorary Secretary, 12, North Terrace, Adelaide	Contract Practice Appointments at Remmark Contract Practice Appointments in South Australia
WESTERN AUSTRALIA: Honorary Secretary, Salin's George's Terrace, Perth	All Contract Practice Appointments in Western Australia
NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington	Friendly Society Lodges, Wellington, New Zealand

Diary for the Month.

JULY 10.—New South Wales Branch, B.M.A.: Ethics Committee.
JULY 11.—Western Australian Branch, B.M.A.: Council.
JULY 11.—Melbourne Pediatric Society.
JULY 12.—Victorian Branch, B.M.A.: Council.
JULY 13.—New South Wales Branch, B.M.A.: Clinical Meeting.
JULY 13.—Queensland Branch, B.M.A.: Council.
JULY 13.—South Australian Branch, B.M.A.: Council.
JULY 17.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
JULY 18.—Western Australian Branch, B.M.A.: Branch.
JULY 24.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.
JULY 25.—Victorian Branch, B.M.A.: Council.
JULY 25.—Western Medical Association (Parkes), New South Wales.
JULY 26.—South Australian Branch, B.M.A.: Branch.
JULY 26.—Brisbane Hospital for Sick Children: Clinical Meeting.
JULY 27.—New South Wales Branch, B.M.A.: Branch.
JULY 27.—Queensland Branch, B.M.A.: Council.
AUG. 1.—Victorian Branch, B.M.A.: Branch.
AUG. 3.—Queensland Branch, B.M.A.: Branch.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4636.)

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Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xviii.

ROYAL ALEXANDRA HOSPITAL FOR CHILDREN, SYDNEY: Honorary Surgeon, Honorary Relieving Assistant Surgeon.